COAL MINING

UNIVERSITY MICROFILMS
313 N 1ST ST
ANN ARBOR, MICH

April, 1961

Volume 38, No. 4

rugged equipment for tough jobs...

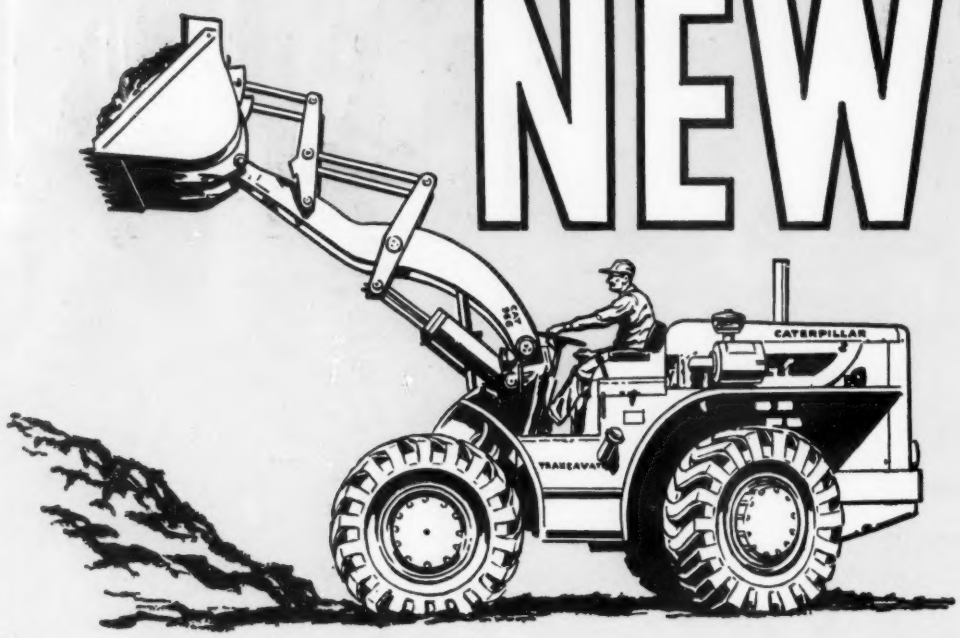
Allis-Chalmers • Master • Lima • Thor
Heltzel • Gar Wood • Jaeger
Buffalo-Springfield • Lippmann Crushers
Rogers Trailers

Allis-Chalmers HD-21 strips overburden at Iseman Bros., New Bethlehem.

A-4088A

HIGHWAY EQUIPMENT COMPANY
6465 Hamilton Ave. • Pittsburgh 6, Pa.
40 Hoover Ave. • Du Bois, Pa.
5245 Peach St. • Erie, Pa.

NEW



2¾ YD. CAT WHEEL LOADER

BIG 966

Top producer of the Cat wheel loaders ... the 140 HP, 2¾ yd. 966 Traxcavator. The big production machine with the best features *plus* dependability.

- **Control with fast, easy Cat power shift transmission, automatic bucket positioners.**
- **Speed from 140 HP turbocharged Cat Diesel Engine and *live action* hydraulics.**
- **Stability in design with almost 5 feet dumping reach.**
- **Safety with open, easy-access cockpit — all bucket arms are out front.**

Your Caterpillar Dealer

Beckwith

MACHINERY COMPANY

6550 HAMILTON AVENUE, PITTSBURGH 6, PENNSYLVANIA
361-369 CONGRESS STREET, BRADFORD, PENNSYLVANIA
OLD TOWN ROAD, CLEARFIELD, PENNSYLVANIA
1356 EAST 12TH STREET, ERIE, PENNSYLVANIA
ROUTE 219 NORTH, SOMERSET, PENNSYLVANIA
BUCKHANNON PIKE, CLARKSBURG, WEST VIRGINIA

Earthmoving Equipment Is Our Business – Service, Our Concern

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

COAL MINING

Vol. XXXVIII April, 1961 No. 4

Contents

Do You Know? 5

Time for Adequate Training of Future Work Force is Now 11

Just When is Quantity a Good Buy .. 12

Questions and Answers on Profit-Sharing Plans 14

Tractor Mounted Rippers Reduce Stripping Costs 20

Caterpillar Will Display New High Production Products at Coal Show 22

Open Pit Association Names Conservation Director .. 26

Advertisers Index 30

Published by

Modern Mining Publishing Company

4575 Country Club Drive

Pittsburgh, Pa. Phone TU. 1-9411

P F. JASIK, Publisher and Editor

☆

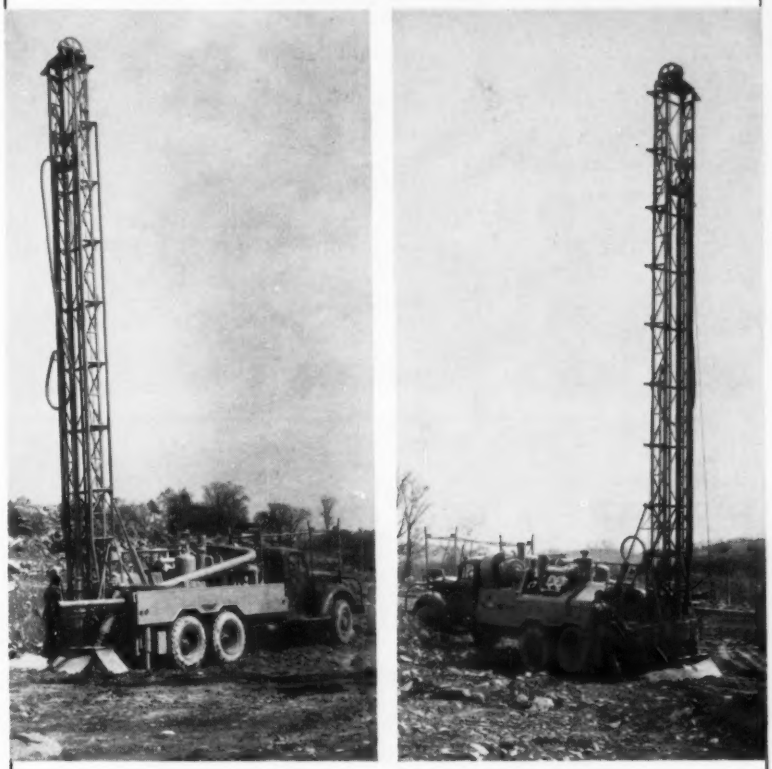
Printed by

ADVANCE PRINTING & LITHO CO.

1118-20 Chestnut St.

Erie, Pa. GL 4-7196

DAVEY Rotary Drills cut coal drilling costs!



Davey Model 8-MA at U.S. Coal Co., Holloway, Ohio.

For more economical, faster drilling . . . increased production at reduced costs, leading strip operators rely on Davey.

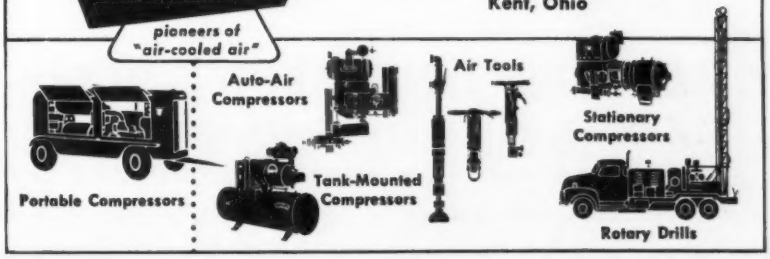
Suitable for mounting on any make of truck, Davey Rotary Drills move fast between blast holes . . . are ideal for low cost core drilling with air . . . easy to set in drilling position.

Daveys are offered in 8 different truck-mounted models—air blast, mud pump or combination types. Rated capacities to 3,500 ft. Features include choice of power take-off or separate power unit operation, automatic hydraulic feed with manual override, heavy-duty rotary table and rugged tubular box-type mast. Tractor mounted drills also available. A-232A

Write for Bulletin E-702S!

DAVEY pioneers of "air-cooled air"

DAVEY COMPRESSOR CO.
Kent, Ohio



Published monthly by Modern Mining Publishing Company. Publication Office—Advance Printing & Litho Co., Erie, Pa. Editorial and Executive Offices—Erie, Pa. Pittsburgh Offices—P. F. JASIK, Publisher, 4575 Country Club Drive, Pittsburgh 36, Pa. Price: In the United States, $3.00 year; all other countries $5.00. Single copy 25 cents. Entered as second class matter at the Post Office at Erie, Penna., under the act of March 3, 1879.

DESIGNED ...WITH YOU IN MIND

HERE ARE A FEW OF THE MANY FEATURES YOU'LL LIKE

- *CENTRAL LOCATION*

  Within easy access of Pittsburgh and points South by Parkway and Route 22 East but out of heavy city traffic. Easily reached from the North, East and West by Pennsylvania Turnpike and feeder arteries.

- *PLENTY OF FREE PARKING SPACE*

- *STREAMLINED PARTS DEPARTMENT*

  20,000 square feet of space with improved bin storage, palletized rack warehousing. Over $750,000 Caterpillar parts inventory in this one location alone. Modern electronic perpetual inventory system to assure a constant supply of needed parts. Parts pick-up dock 100' long for swift, easy loading. Teletype service to five other Beckwith Service Centers and Caterpillar Parts Depots.

- *PRODUCTION-LINE SERVICE DEPARTMENT*

  17,500 square feet of enclosed working space, plus ample outside aprons for easy flow of service traffic. 15 bays with two overhead traveling cranes with 23' clearance in each bay, to move the machinery quickly, assembly-line fashion, to specialized work areas, for faster Caterpillar rebuilding.

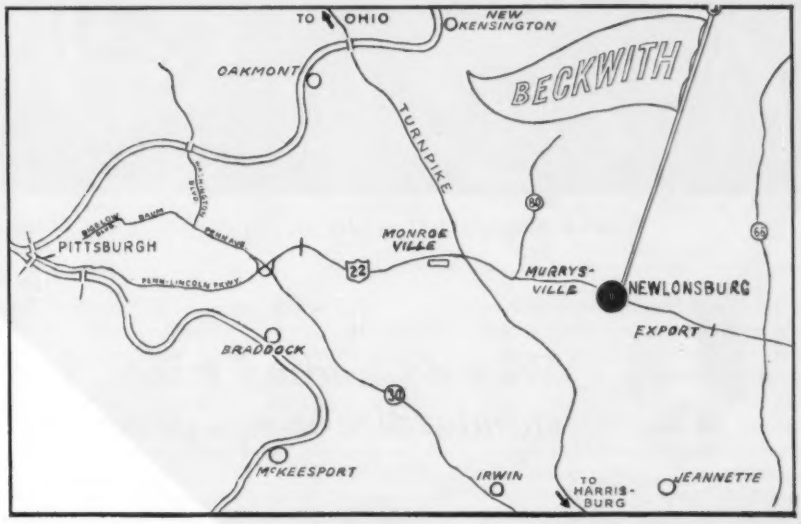
all other countries $5.00. Single copy 25 cents. Entered as second class matter at the Post Office at Erie, Penna., under the act of March 3, 1879.

BECKWITH'S NEW PITTSBURGH FACILITIES MEAN GREATER SERVICE, GREATER SAVINGS THAN EVER!

There is only one reason why Beckwith left its previous location on Hamilton Avenue in Pittsburgh and built a modern 60,000 square foot plant on Route 22, East of Pittsburgh

TO SERVE YOU BETTER!

HERE'S HOW TO FIND BECKWITH'S NEW LOCATION



● *NEW MAIL ADDRESS*

P. O. BOX 8718
PITTSBURGH 21, PA.

● *NEW PHONE NUMBER*

FAIRVIEW 7-1300

YOUR CATERPILLAR DEALER

Beckwith

MACHINERY COMPANY

Caterpillar, Cat and Transaxaler are Registered Trademarks of Caterpillar Tractor Co.

ROUTE 22, EAST OF PITTSBURGH, PA.
P.O. BOX 8718, PITTSBURGH, PA.
361-369 CONGRESS STREET, BRADFORD, PA.
OLD TOWN ROAD, CLEARFIELD, PA.
1356 EAST 12TH STREET, ERIE, PA.
ROUTE 219 NORTH, SOMERSET, PA.
BUCKHANNON PIKE, CLARKSBURG, WEST VA.

Earthmoving Equipment Is Our Business—Service, Our Concern

Allis-Chalmers HD-21 . . . Marion Center Mining Co., Marion Center, Pa.

Q. *Why do leading mines, year after year, standardize on equipment from Highway?*

A. *Mines, whose profits depend on efficient operation, with minimum downtime, know they can depend on Highway! Your mine will give higher production — at lower cost — because of Highway service.*

A-1672A

Highway

HIGHWAY EQUIPMENT COMPANY

6465 Hamilton Ave. • Pittsburgh 6, Pa.
40 Hoover Ave. • Du Bois, Pa.
5245 Peach St. • Erie, Pa.

Allis-Chalmers • Master • Lima • Thor • Heltzel • Gar Wood
Jaeger • Buffalo-Springfield • Lippmann Crushers
Rogers Trailers

Do You Know?

● A national water resource program supported fully by all levels of Government and other organizations must be developed to combat water pollution.

Until state and Federal governments take a more active role in water pollution, the objectives of a national water pollution control program cannot be met, the Public Health Service Water Pollution Control Advisory Board has concluded.

Although states have primary responsibility for water pollution control, their programs, with few exceptions, are entirely inadequate, the Board charged. State agencies must be provided with adequate funds and given more power to carry out their programs.

The Board recommended a crash program in Federal aid that includes construction of city waste-treatment plants and research laboratories, and grants for state and interstate water pollution agencies.

The Board met to review the findings of the U. S. Senate Select Committee on National Water Resources. Although the Senate study covered a much greater scope in water planning, the Board emphasized that the pollution control program must be given the highest priority in water resources developments.

Water pollution control is an integral part of the national water problem, and "water quantity requirements can be met . . . only if water quality is maintained," the Board reported to the Surgeon General of the Public Health Service.

The advisory group agreed with the major recommendations of the Senate Select Committee. The Board especially emphasized the Senate recommendation of a ten-year Federal program to states for water resources planning.

● College mathematics training must be updated to keep abreast of the "explosion" of knowledge in engineering.

A rapid change in the mathematical world and its related fields has made this revision necessary, Dr. H. O. Pollak of Bell Telephone Laboratories stressed to a group of 50 leading mathematicians and engineers meeting in Washington.

New applications of mathematics in engineering are creating various trends already visible in the engineering world. More emphasis on basic science, installation of large complex engineering systems and wider duties of research engineers demand a stronger mathematics background, Dr. Pollak said.

Extensive changes must be made in the mathematics classrooms, Dr. Pollak said. More mathematics should be required and elementary courses made more "sophisticated" to meet the demand.

The expanding use of engineering mathematics is an "explosive," not a "revolutionary" change, the scientist stated. Already, the electronic computer is affecting every phase of science and technology, from basic research to the production line.

Dr. Pollak spoke to a Mathematical Association of America's committee that is seeking to wipe out the one- to four-century lag in some school and college math teaching.

● Early retirement will increasingly be the lot of most manual workers, a study by the Nuffield Foundation has shown.

For many years Government officials and physicians have advised older persons to continue working.

In industrial plants at least, however, it seems there is no place for the aging worker. No longer able to keep up the pace on the assembly line, and with but little alternative light employment available, he must get out. Automation will not help him.

Indeed, the introduction of the new technique "may have the result of inclining companies more generally to favor an arbitrary retiring age," a report on the study states.

By 1980, nearly one man in five in most civilized countries will be over 65. Many must retire and then spend 12 years or more in retired life. Most such men will be in good health, but will simply have grown too old for the job.

F. Le Gros Clark, who produced the report, based it on studies in eight highly mechanized plants. They employed more than 52,000 men and produced motor vehicles, rayon yarn, cardboard, tobacco products, aluminum foil, domestic power appliances, plate glass and domestic furniture.

The Nuffield Foundation is at Cowley, Oxford, England.

● A new transformer design may revolutionize the distribution of electric power to the nation's consumers.

Developed by General Electric, the new unit is the first distribution transformer designed in 75 years that does not use oil in significant quantities for cooling and insulating.

By eliminating this fire hazard, the transformer can be mounted on a house or garage wall. The unit can also be buried in the ground or used in mines where moisture and other similar problems are constant threats.

The new transformer will replace the bulky ones now attached to pole tops. Trial units will be installed in selected homes throughout the country this year.

• Keystone Diesel Engine Company, Inc. of Wexford, Pa., the only authorized Detroit Diesel Engine Division Distributor in western Pennsylvania, is proud to announce the opening of its latest expansion facility. This new building will add an additional 4000 square feet to present shop facilities. The new area will be devoted exclusively to the repowering of On and Off-highway trucks, industrial conversions, and the fabrication of AC and DC generator sets in all sizes. Keystone Diesel Engine Co., Inc. is the factory authorized outlet in western Pennsylvania for the sale and service of the popular General Motors Diesel "All Purpose" line of Diesel Engines.

144,292

IN ELEVEN MONTHS

This big McCarthy Auger mined 144,292 tons in eleven months in east Kentucky. That's bigger tonnage than many 100-man underground operations produce. And it was done with a two-man drilling crew!

Two big facts loom large in tonnage like this:

RUGGED CONSTRUCTION AND OUTSTANDING DESIGN which hold downtime to a minimum. . .

HYDRAULIC JACKS AND SKIDS which move the auger from hole to hole. No need to wait for the 'dozer.

The only time drilling slowed up was when haulage roads became impassable. The big drill works under almost "swamped" pit conditions. Pits can be as narrow as 30 feet. Highwalls can curve in or out. Coal of any density can be drilled with ease. Recovery rate is the best in the field!

If you'd like FACTS and FIGURES on the cost of augering, with a McCarthy, write directly to us or contact your nearest Salem distributor. Initial investment is less; pit-to-pit moves faster; set-up quicker. What's more . . . you can switch auger sizes at no added investment.

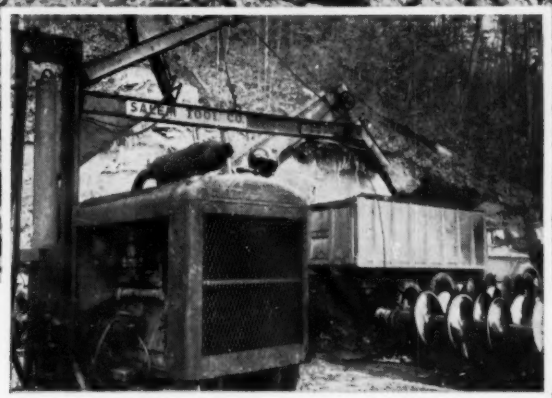
Add it up . . . augered coal costs less with a McCarthy!

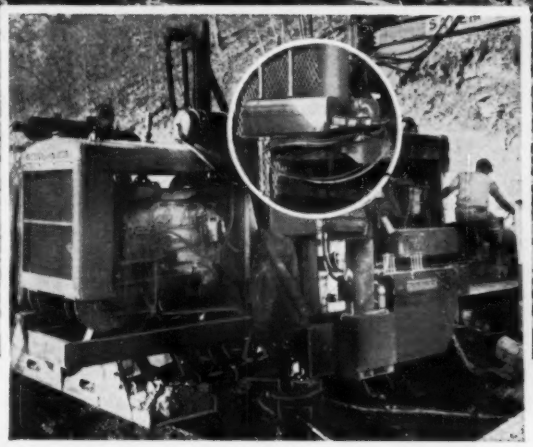
RUGGED AUGER works tight against the face. Operator can see entire highwall and observe rapid flow of coal. Only two-man crew required.

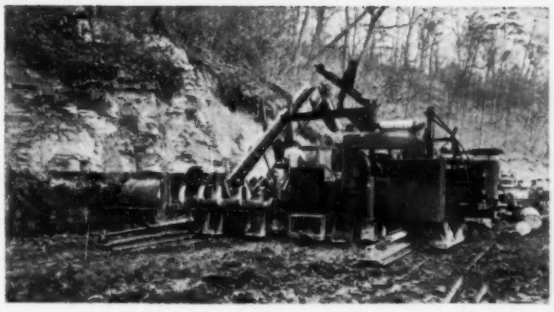
SALEM TOOL COMPANY

773 SOUTH ELLSWORTH AVE. • SALEM, OHIO

TONS







POWER-LADEN diesel engine travels smoothly on cam rollers. Advance and return are fast. Side boom has hydraulic lift and swing. Drill has low center of gravity. (ABOVE)

MODERN AUGER MINES utilize two-way radio. Big tonnages made possible by powerful McCarthys have boosted auger mining into big tonnage, high-profit class. (TOP RIGHT)

EXTENDED SKIDS smoothly position drill without 'dozer help even in sloppiest pits. Auger moves forward, back or to either side under own power. (RIGHT)

● Appointments to 3 Davey Compressor Co., top executive positions were announced by Paul H. Davey, Jr., president.

L. W. Darling

L. W. Darling, formerly general sales manager, was named director of marketing. In his new post he will be in charge of all domestic customer relations, including direction of sales, advertising, service, credit and new product development.

C. E. Flora

Affiliated with Davey for 14 years, Mr. Darling was previously manager of government sales, district manager of the Davey Chicago office, and New England district manager. He is a graduate of Duke University, College of Engineering.

Succeeding Mr. Darling as general sales manager is C. E. Flora, manager of industrial sales for the past 5 years. An alumnus of Northwestern University, he was formerly compressor division manager, Binks Manufacturing Co., Chicago. His experience also includes service as general manager, Compressor Engineering Co., Chicago.

G. B. Edgell

In his new post, Mr. Flora will direct activities of 12 district offices and more than 200 direct factory distributors. He will supervise sales of the 3 Davey divisions which produce portable compressors, air tools, rotary drill rigs, mobile machine shops and industrial compressors.

New director of operations is G. B. Edgell who has been a member of the Davey organization since 1940. His responsibilities include management of engineering and production of all Davey products, in addition to activities related to labor, materials and facilities.

Mr. Edgell was formerly manager of the Davey engineering department. During World War II, he served 3 years in the U. S. Army Corps of Engineers in charge of the heavy mobile machine shop training division.

R. F. Pennington

● The appointment of R. F. Pennington as Chicago District Manager of The McDowell-Wellman Companies was announced today by J. J. McGlone, Vice President of Sales, Cleveland, Ohio. Mr. Pennington will be responsible for sales of Wellman engineered products and services as well as those of the affiliated McDowell Company, Inc.

Mr. Pennington joined McDowell-Wellman in 1949 as Manager of the McDowell Air Transport Department, and from 1949 to 1959, served as pilot and manager ferrying men and materials to construction and engineering jobs throughout the United States and Canada. In 1959, he joined the Sales Department of the Dwight-Lloyd Division, developers and manufacturers of sintering, calcination, agglomeration, beneficiation and direct iron making processes and systems.

Mr. Pennington is married and has two daughters. He is assuming immediate duties as Chicago District Manager with offices at 520 North Michigan Avenue, Chicago 11, Illinois.

Even if you don't need

the world's largest

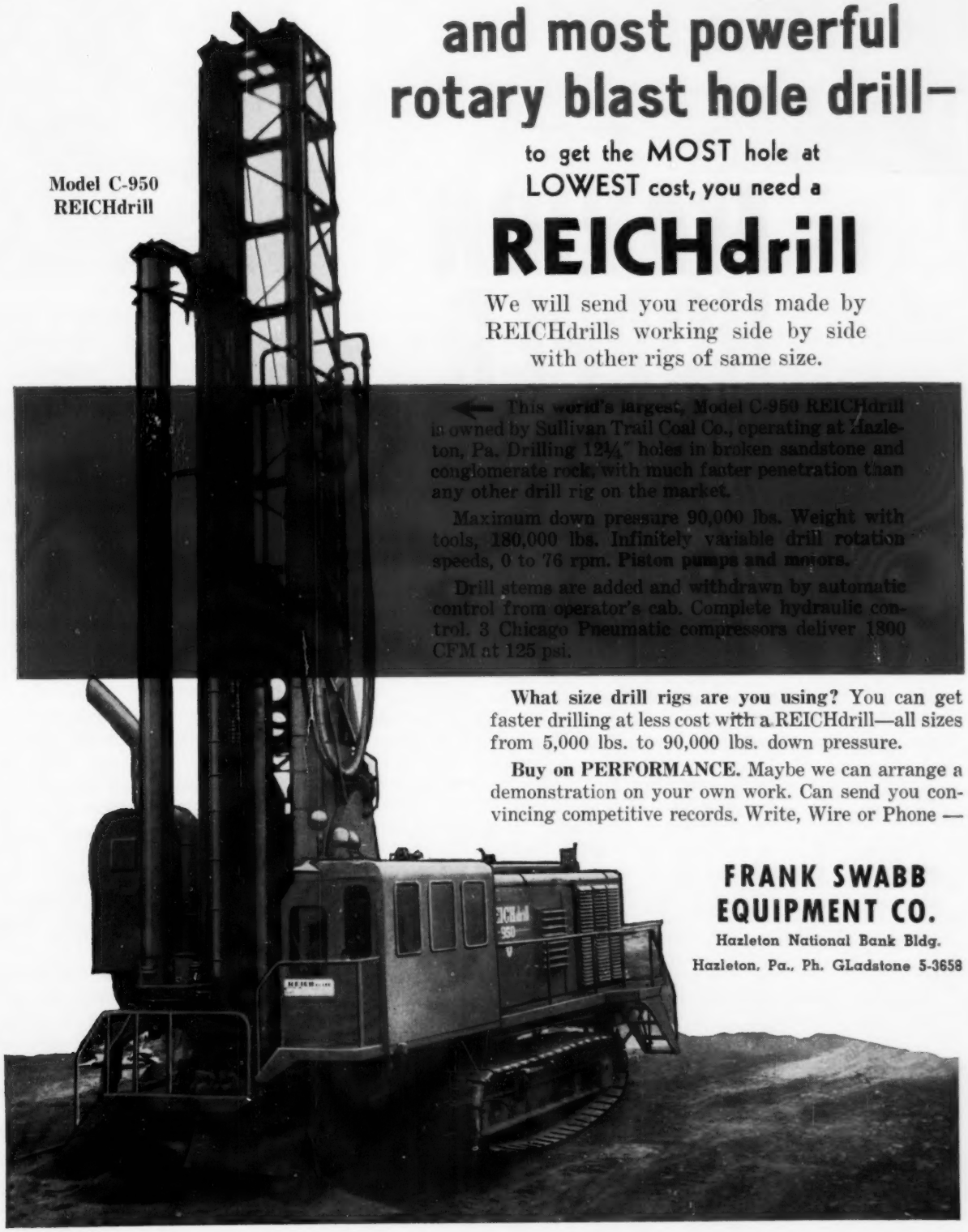
and most powerful rotary blast hole drill—

to get the MOST hole at
LOWEST cost, you need a

REICHdrill

We will send you records made by REICHdrills working side by side with other rigs of same size.

Model C-950
REICHdrill



← This world's largest, Model C-950 REICHdrill is owned by Sullivan Trail Coal Co., operating at Hazleton, Pa. Drilling 12¼" holes in broken sandstone and conglomerate rock, with much faster penetration than any other drill rig on the market.

Maximum down pressure 90,000 lbs. Weight with tools, 180,000 lbs. Infinitely variable drill rotation speeds, 0 to 76 rpm. Piston pumps and motors.

Drill stems are added and withdrawn by automatic control from operator's cab. Complete hydraulic control. 3 Chicago Pneumatic compressors deliver 1800 CFM at 125 psi.

What size drill rigs are you using? You can get faster drilling at less cost with a REICHdrill—all sizes from 5,000 lbs. to 90,000 lbs. down pressure.

Buy on PERFORMANCE. Maybe we can arrange a demonstration on your own work. Can send you convincing competitive records. Write, Wire or Phone —

FRANK SWABB EQUIPMENT CO.
Hazleton National Bank Bldg.
Hazleton, Pa., Ph. GLadstone 5-3658

MARION HOPPER TRAILERS

OHIO FIRM USES MODERN MARION HOPPERS TO MOVE BIG TONNAGES

Nine hours a day—five days a week, three Marion Hopper Trailers haul tons of material from pit to tipple for American Aggregates Corp. of Greenville, Ohio.

They have performed this heavy chore with "very little trouble. And that's saying quite a bit, because they are really put to the test every day," says Plant Manager Leo Hinders.

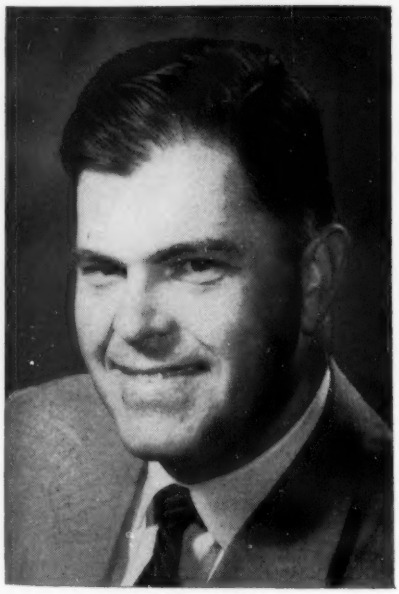
Since purchasing their first Marion in 1953, American Aggregates have added two more, one in 1955 and their third in 1960. This confidence in Marion Hoppers can only come from dependable on-the-job performance witnessed by men responsible for running their business at a profit.

If you're in need of the kind of outstanding hauling performance taking place at American Aggregates, call your nearby Marion Distributor or, write direct for all the details on Hoppers and the complete Marion line.

MARION METAL PRODUCTS CO., Marion, Ohio, U.S.A.

BODIES AND HOISTS

MARION



Myron Geller

● Myron Geller has been named Sales Manager of the Wheel Excavator Division of The Wellman Engineering Company it was announced today by J. J. McGlone, Vice President, Sales.

Mr. Geller will assume full responsibility for the promotion and sales of the division's recently acquired Demag-Lauchhammer line of wheel excavators, reclaimers and stackers in the U. S. A. and Canada as well as the newly-developed barge wheel unloader. The Lauchhammer equipment is designed for heavy-duty, high-volume materials handling.

With over 11 years sales and engineering experience in the excavating industry, Mr. Geller was previously employed as a Sales Representative by the Bucyrus-Erie Company of South Milwaukee, Wisconsin, from 1949 to 1954. From 1955 to 1961, he was employed by the Marion Power Shovel Company, Marion, Ohio, and became Sales Manager in 1958.

Mr. Geller is a graduate of Cornell University, Ithaca, New York, with a Bachelor of Science Degree in Civil Engineering. He also obtained a Degree of Master of Science in Industrial Management from Columbia University.

A New Yorker by birth, Mr. Geller now lives with his wife and two children in Cleveland Heights, Ohio.

Time For Adequate Training of Future Work Force Is Now

Ability to do things does not necessarily relate to so called intellectual attainment. Ability rises out of basic human emotion and basic human emotion is timeless.

Judging from the strides automation of American industry has made since World War II, the next decade should see an unprecedented revolution in automated industrial machines.

Today electronic computers are a thousand times faster than 3 years ago and a million times faster than 10 years ago. Still faster computers are being developed which mean phenomenal increases in speed will enable them to store larger amounts of data and quickly hand manipulated results over to automationists for incorporation into newer industrial processes. We already have machines doing unusual jobs in industry which are challenging engineers and scientists to find more unusual uses for the superhuman brain they have developed to date.

In some industry, today, automation is no longer merely the modern way of doing the job: it is the only practical way some jobs can be done. In the very near future, the level of mathematical theory and the level of automation of an industry will be an important measure of the competitive strength of that industry.

Automationists are the most important group of men in the world today. What automationists do is of passionate concern to the whole of human society. At this time there is a need for better communication between American mathematicians and engineers to assure favorable worldwide competitive business standing. To operate and to maintain automated industrial machines is going to take properly trained and properly guided skills. There is, now, a serious and damaging shortage of automationists and their assistants in our industries, today. Adequate skill of our future automated industrial work force depends on the vocational guidance we give it today.

Just When Is Quantity A Good Buy?

by Ernest W. Fair

Price is always the major factor in determining how large a quantity of any given item we are buying since the dollar savings economics invariably go along with quantity purchases of any supplies or materials by every coal company from the smallest to the largest. But, as many an executive has learned to his sorrow, price can never be the sole determining factor. Where nothing else is considered losses invariably result.

The price consideration in studying a quantity purchase must always be justified by a number of other factors. Purchasing solely on a basis of price alone can be misleading, i.e., will invariably cost like the dickens in the long run.

The question of just when quantity is a good buy has to be answered individually for every specific opportunity which arises for there simply is no universal formula available for our use. Each case must be studied with several factors in mind.

We've discussed this point of purchasing with a number of executives with high reputations for their abilities in this direction. Herewith are the "other factors" they weigh in every decision as to whether or not price offered on quantity purchase of any supply or material item is a good buy.

Rate of use must always be taken into account. Where it will take an exceptionally long period of time to use up the item under consideration on a special price offer the savings involved can vanish. Many, many things change in time, from dollar values to methods of use. An exceptionally large quantity purchase of an item with a very slow rate of use means the dollar savings involved will most certainly vanish in a scores of different ways. The rate of use should definitely be tied in to fixing the quantity to be purchased. Few firms care to purchase beyond a year's consumption except in most unusual cases.

Danger of obsolesence is ever present in this day and age. Such a situation can leave us with a huge quantity of any item of no use whatsoever to the firm. The executive who keeps abreast of what is happening in the coal industry can avoid most of the danger of obsolesence on purchases but unless we keep the factor in mind at the time the quantity purchase is being weighed it may slip aside unnoticed.

New inventions must always be considered when we are answering the big question. Not only those now in process about which we are aware but others which may reasonably occur in the immediate future may well justify our hedging against too large quantity purchases regardless of the enticing price which may be offered. Even if we have no such knowledge this point should be kept in mind as a possibility. In many cases where particularly low prices are being offered on something we can well be suspicious that the seller may have such information which has not reached one as yet.

New techniques in the use of any item may also make our special price quantity purchase a bad bargain. Examining the prospective purchase from this viewpoint is always good procedure. It is equally wise to avoid purchase of too great quantities simply because such a development is most likely to occur over any long period of time.

Continued demand for product must be weighed in considering any such quantity purchase and the larger the volume or greater period of time over which it is to be used the more exact we must try to be in arriving at a reasonable expectation of this factor.

Earning capacity of capital funds of the firm must also be taken into account in such purchases. In most instances these large quantity purchases involve considerable sums of money and these dollars will be tied up in supplies or materials over an extended period of time into the future. It is necessary to take into account the earning capacity of those capital funds when put to other uses in the firm as compared with the savings that may be secured through their use for the quantity purchase under consideration. If the amount of saving involved is much greater than the earning capacity of these dollars then it is always a good move on our part. However this should be the **difference** between the price we would pay normally and the special discount being offered for the extra quantity purchase.

The storage factor must not be overlooked when we are considering whether or not a quantity purchase is a good buy. We have known of several instances where firms have made such very large volume purchases on materials because of an attractive price offer for so doing then were required to expend high rental dollars to secure the extra storage space needed to protect them. Whenever any exceptionally large volume purchase is being considered it will pay to look into the storage facilities and costs before we make a commitment for the purchase. In areas where there is no surplus of such facilities they are sometimes so high as to put the costs far beyond what we would normally pay on a small purchase.

Maintenance of quality is another often overlooked point. This applies

not only to our continued use of the goods but the quality contained therein from the supplier. Where guantity is extremely large no such purchase, regardless of price appeals, can advisably be made without contractual restrictions on quality covering the entire delivery.

Changes in market price on the item itself should be weighed as carefully as possible. Naturally there is no known method of accurately determining the existence of this factor but there are always trade index's which we can watch carefully as a guide. The existence of the possibility in itself should always be given our consideration and we can well harbor a healthy suspicion that the seller knows something of this nature or he wouldn't be so eager to sell at particularly low prices.

Deterioration in storage must be a point of consideration. There are some material and items which have such a small rate of deterioration this seldom a factor unless they must be retained for a very long period of time. There are others where it must very definitely be considered. The savings through large quantity purchase available to us should always be discounted by the probable amount of loss from deterioration where it does exist.

Added insurance costs, where they are involved, must enter into our calculations. On very large quantity purchases involving investment of considerable capital funds such insurance protection is an absolute must. Whatever additional coverage must be purchased over that now held should be assessed against the possible savings on such purchases.

Are there **new market developments** in the offing which will affect the use of the items under consideration? Whatever effect such changes may have can result in most important dollar factors.

New materials coming onto the market often bring about such price cutting offers on the part of suppliers. The possible savings we can secure through such a purchase may very easily be offset by lower costs or increased efficiency of such new items as compared with those being offered. The savings made through such a purchase, under these conditions, quickly vanish and in many instances can turn into sizeable losses instead.

Will tomorrow's profit margins be the same? All of our purchasing of supplies and materials today are based on the existing margins with which we have to work. Should economic factors bring about an abrupt change in the profit margin then the price we paid for such purchases may prove to be exhorbitant. On the other hand the contemplated deal may be a very good one if these margins have a chance of working in the other direction.

Import situations bear watching these days. Changes therein may result in such items being available to us in the very near future at figures even below the quantity discount we are being offered today.

Re-sale value merits consideration. A situation may arise where it could be necessary to re-sell the purchase on the market and if this happens what will be our dollars-and-cents position?

Each of the foregoing points affect the answers to the questions of just when quantity purchase on any supply or material item by the firm is a good buy. All are equally important with the more obvious price factor every time.

• Every business man is interested in reducing operating costs in today's competitive climate, but not all apparent savings result in cost reductions. A contractor in an eastern state, for example, recently purchased a track assembly made by an overseas manufacturer for his American-built crawler tractor. The original equipment assembly had worn out after 3,305 hours of operation. The tractor manufacturer's price for a replacement component was $795 but the foreign-made assembly delivered for only $395, less than half as much, and in addition was described as being just as good as the original equipment. Here was a real savings opportunity.

Seven hundred working hours later the contractor found that he'd purchased an expensive "bargain." The $395 replacement had worn out. It took very little figuring to prove that he hadn't really reduced his operating costs at all, but had, in fact, increased them.

The original track assembly, valued at $795 had performed 3,305 hours of work at a cost of 24 cents per hour of operation. The foreign replacement at $395 lasted 700 hours at a cost of 56 cents per hour. Of course, what he learned the hard way was worth something. He learned that:

Had he continued to re-equip the tractor with the "just-as-good" assemblies, presumably purchased on a wholesale basis, during the 3,300 hours of operation he could reasonably expect from the original-equipment manufacturer's product, he would have had to replace the foreign at least three more times. Thus, keeping this track on the tractor would have cost $1,580, or almost twice as much in the long run.

Original equipment manufacturers constantly seek to drive home the point that no one can meet repair or replacement parts needs better than the manufacturer who made the truck, tractor, engine, or other machine in the first place. This somewhat extreme instance merely illustrates this point.

"Will-fits" and "just-as-good" parts are purchased every day, and will probably continue to be purchased by owners looking for a bargain. They may prove to be a costly experiment, or actually may cause damage because of inferior properties or improper fit.

The original-equipment manufacturer has gone to painstaking effort to assure owners that each part is the best available for his product. He knows that the reputation of his entire machine is at stake with each parts sale. This knowledge on his part is your protection, your best insurance for obtaining lowest possible operating costs.

Questions and Answers on Profit-Sharing Plans

You can give your employees a tax break when your profit sharing plan measures up to the new Internal Revenue Service rulings.

by Paul Lockwood

Coal mine management can help their key employees build a tax-sheltered fortune with a qualified profit-sharing plan. And, with the addition of the provision for employees to make voluntary contributions, you can give them a chance to build an even larger estate without any extra cost to you.

Here are some questions and answers on the latest rulings on pension and profit-sharing plans released by the Internal Revenue Service:

How does a profit-sharing plan give my employees a tax break?

As an employer, your contribution to the profit-sharing plan are tax deductible. **But,** they are not currently taxable to the employee in whose favor the contributions to the plan are made. Earnings of the trust are tax exempt and accumulate tax-free for the benefit of the employees or their beneficiaries.

When an employee retires, dies or leaves your employ, he or his beneficiaries are paid the amount due him from the fund. If this is paid in a lump sum, the income tax is limited to the low 25% capital-gain income tax rate.

Is there any other way my employees can save tax dollars with a profit-sharing plan?

Yes. They may be able to build up an estate equal to the one developed with your profit-sharing plan with the same income tax savings. And, **this provision will not cost you one cent.**

The Internal Revenue Service in a recent announcement (Revenue Ruling 59-185) approved a profit-sharing plan that permits employees to contribute as much as 10% of their earnings to the profit-sharing plan each year. The ruling specifically says:

"As employees' pension, profit-sharing, or stock bonus plan will not fail to meet the requirements of section 401 (a) on the Internal Revenue Code of 1954 merely because it provides for voluntary contributions by employees up to ten per-cent of their compensation, provided employer contributions or benefits are not geared to employee contributions.

Thus, your employees can contribute up to 10% of their compensation to the profit-sharing plan. This investment is handled in the same way as the employer's contribution to the fund when it is distributed . . . taxed at the 25% capital-gains rate when withdrawn in a lump sum.

Are employee contributions to the profit-sharing plan tax deductions?

No. Your employees are required to include all compensation in their taxable income. Thus, if a man earns $10,000 a year and contributes $1,000 to the profit-sharing plan (10% of his earnings) he does not use the $1,000 as a personal income tax deduction. He must report the entire $10,000 as taxable income for his personal income tax reporting. His income tax break comes when the money is withdrawn from the profit-sharing plan and he pays only 25% of the gain as a capital-gains income tax.

How do I set up a profit-sharing plan?

You establish an employees' trust. Thus you hold, invest, and distribute the money according to a plan which will provide for the future security of your employees.

Is the income from this employees' trust taxable?

Not if your profit-sharing plan measures up to these requirements of Section 401 of the Internal Revenue Code:

1. It must be created or organized in the United States.

2. It must be for the exclusive benefit of your employees or their beneficiaries.

3. The purpose of the plan must be to provide your employees or their beneficiaries a share of the profits of your business or an income after retirement.

4. There must be no discrimination in favor of officer, stockholders, executives, or highly paid employees.

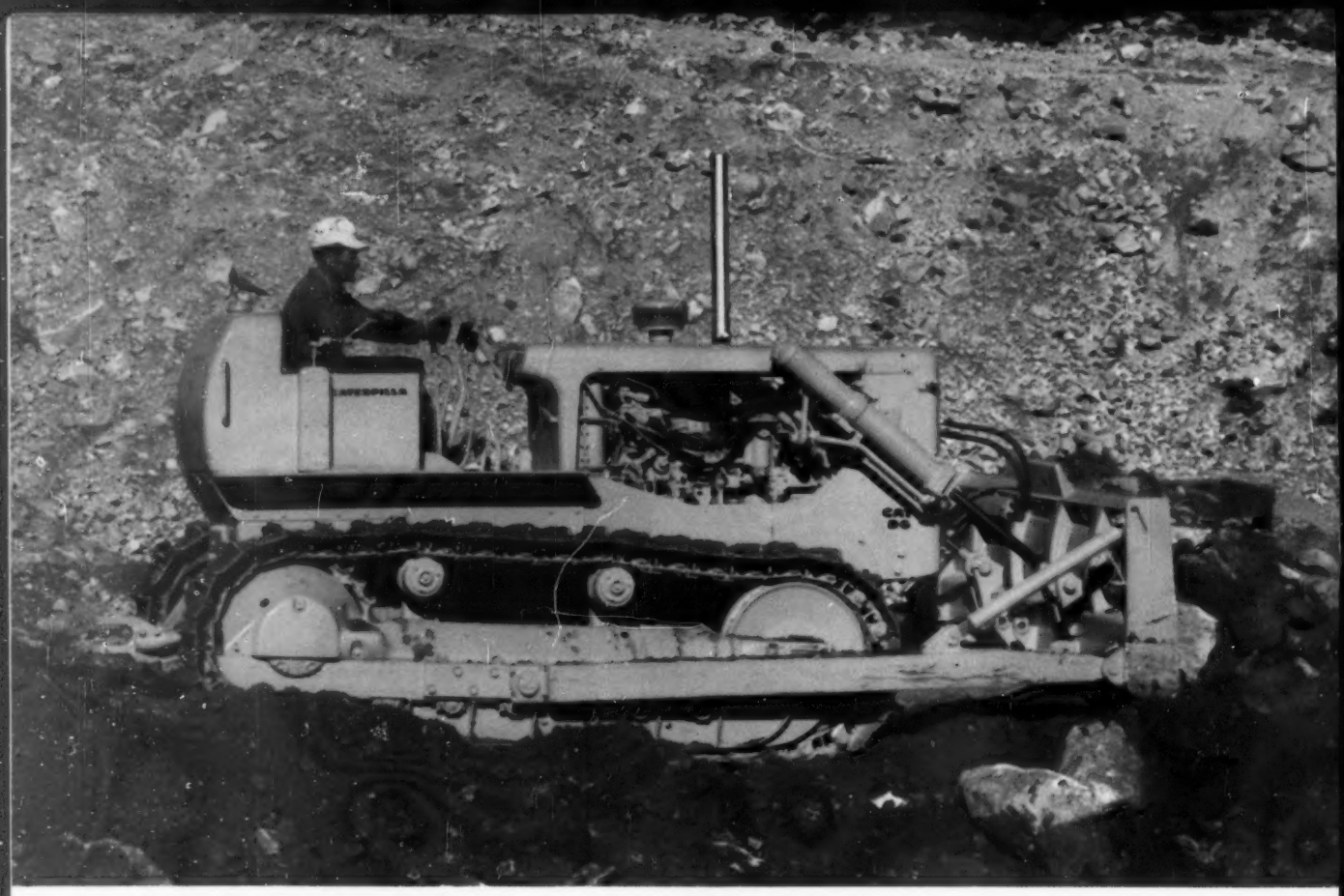
5. Your intent when establishing a profit-sharing plan should be to make it a permanent part of your employees welfare program.

How can I be sure that my profit-sharing plan will be considered for the "exclusive benefit of the employees?"

You can set up any requirements to qualify for participation in the plan you want provided that no more than five years employment is required. The Internal Revenue Code also says that your require-

(Continued on Page 19)

D4c
NEW!
D6B
OLD
TRACTORS
CANNOT
COMPETE...
CATERPILLAR
CAT
D4
CATERPILLAR
CAT
D6
it takes modern machines to
build bigger profits,
bring you more jobs
YOUR CATERPILLAR DEALER WILL SHOW YOU HOW
WITH THE D4c OR D6B

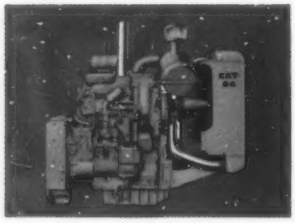


Compare your old tractor's earning

Take a look at what you may be missing...

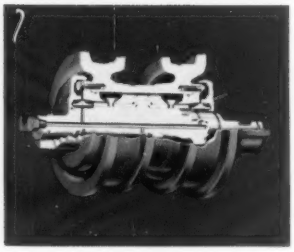
Many contractors have discovered their new D4C or D6B Tractor can deliver that extra competitive edge which wins contracts and profits. For it stands to reason that if you can reduce maintenance and other operating costs and get the job done faster, you'll come out far ahead.

And that's exactly what new D4 and D6 owners are doing! Most of them credit the following advances in heavy-duty tractor design:



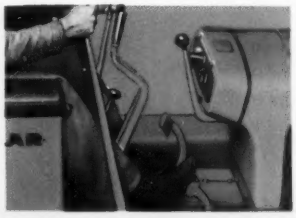
OWNER-APPROVED CAT DIESEL

With 65 HP for the D4 and 93 HP for the D6, both engines deliver a 25% increase in lugging ability. For you this means more yards moved per day, more jobs completed per month. Gears are shifted less often, because you're furnished an extra thrust of power when you need it. D6 owner, Carl Rumage, of the C. A. Rumage Co., says: "We have increased production 30% over previous models; also fuel costs are lower for the amount of work done."



LIFETIME LUBRICATED ROLLERS AND IDLERS

You can forget time-consuming grease jobs on rollers and idlers with the new D4 and D6 Tractors. No lubrication is required until they're rebuilt. And it is practical to rebuild these components, thanks to use of the reliable bushing and shaft roller design, with simple ruggedness for absorbing shock loads.

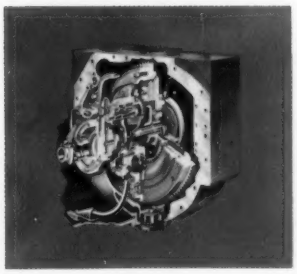


NEW OPERATOR COMFORT

Production gains in the morning can be lost in the afternoon by a fatigued

power with the new D6B or D4C ...

operator. Both the new D4 and D6 are designed to hold fatigue to a minimum. A new clean-deck control arrangement saves reaching effort while a new console groups all gauges together . . . and the seat is almost as roomy as a D8's. At the same time, a new transmission with forward-reverse lever adds snap to any back-and-forth dozing cycle; and live-action hydraulics bring new responsiveness to the blade. Here's what a D6 operator, Cecil Lobb of the Hilby and Russell Co., says: "I like the convenient hydraulic control arrangement and the fast action of the rams. This D6 will outperform anything I've seen yet."



OIL CLUTCH FIGHTS WEAR

It's an industry first and thoroughly proved. With its own gear-type pump, it coats clutch plates with a protective oil film, holding the usual high initial-engagement wear to a minimum. Normally it operates 2000 hours before even requiring an adjustment. Clutch tinkering time is transformed into productive work time. The oil clutch is standard on the D6, optional on the D4.

Add to these developments the fact that both machines are heavier and longer than previous models. You now have a machine whose owner will have a competitive edge over any older machine in its class.

Here's the way Richard Swayze, D4 owner-operator, sums it up: "The D4 I traded in on this machine was three years old, and it had given good service. But the new features on the Series C make this an even better machine. For example, lifetime lubricated rollers and dry-type air cleaners, are real maintenance time-savers."

A good way to test the benefits of a new D4C and D6B over your old machine is to let us demonstrate. You can measure production on your own job, compute your own extra profit. And if you'd like to discuss financing, you will find us able to help.

Stop by our nearest office and talk it over.

CATERPILLAR

New job opportunities and a competitive edge with

MODERN MATCHED EQUIPMENT

Matched equipment like the special dozer tilt cylinder, above, adds a new dimension to the profit possibilities of Cat track-type Tractors.

We offer you a complete line of attachments designed exclusively for Caterpillar machines. Besides the special tilt cylinder for the D6B, we can fit your new D4 or D6 with a variety of matching dozers, winches, rippers, backhoes, spreaders and scrapers.

Any one of these special attachments can give you an extra competitive edge to do the job cheaper, faster. The tilt cylinder, for example, provides corner-of-the-blade penetration to cut time on a variety of jobs. You can gouge out a fast drainage ditch at the end of a day, pry out rocks and stumps with new ease or make a hillside cut faster. The tilt cylinder, which raises or lowers either corner of the blade, is controlled by the operator in his seat.

Important to you is the fact that all matched equipment for Caterpillar machines as well as the basic machines themselves are fully backed by parts and service facilities of your Caterpillar dealer listed below. Call for complete details . . . today!

Headquarters for the best in construction equipment **CATERPILLAR**

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

BECKWITH MACHINERY COMPANY

6550 Hamilton Avenue, Pittsburgh, Pa.
Old Town Road, Clearfield, Pa.
361-369 Congress St., Bradford, Pa.
1356 E. 12th St., Erie, Pa.
Route 219 North, Somerset, Pa.
Buckhannon Pike, Clarksburg, W. Va.

OHIO MACHINERY CO.

6606 Schaaf Road, Cleveland, Ohio
U.S. Route 250, Cadiz, Ohio
4000 Lake Park Road, Youngstown, Ohio

WALKER MACHINERY CO.

Route 60 East, Charleston, W. Va.
4010 Emerson Ave., Route #2, Parkersburg, W. Va.

CM-12

PT-4614C

PRINTED IN U.S.A.

(Continued from Page 14)

ments for participation will qualify:

1. If 70 percent or more of all employees do participate in the program, or

2. If 80 percent or more of all employees who are eligible to benefit under the plan participate if 70 percent or more of all employees are eligible to benefit.

For instance, with 100 employees in your organization, 70 of these people must be considered in the plan. If all 70 of these people participate in the program, the plan will qualify under the first part of these requirements.

Or, if you have 70 people who qualify and 80% of these employees (56) participate in the program, it will qualify under the second part of this requirement of being for the "exclusive benefit of your employees."

In computing the 70% figure, do I have to count all employees?

No. You can exclude employees who have not been in your employ for the minimum period your plan requires. This minimum must not exceed five years according to the Internal Revenue code.

You can also exclude all part-time employees from the total to arrive at the qualifying 70% figure. This includes employees who usually do not work more than 20 hours in any one week, and employees whose customary employment is for not more than 5 months in any calendar year.

Would there be discrimination in favor of officers or top-executives if the contribution to the fund as based on their salaries?

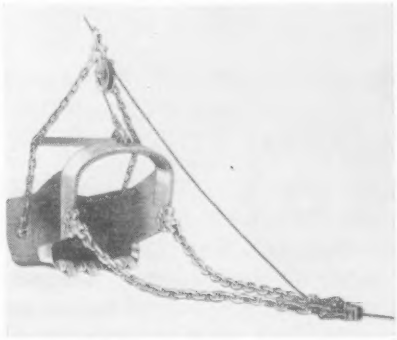
No. Section 401 (a) (5) of the Internal Revenue Code specifically says; ". . . . neither shall a plan be considered discriminatory within the meaning of such provisions merely because the contributions or benefits for or on behalf of the employees under the plan bear a uniform relationship to the total compensation, or the basic or regular rate of compensations, of such employees . . . "

Any discrimination would be where the profit-sharing plan was established in such a way that it did not measure up on the 70% of total employees qualification, or that the minimum time of employment exceeded the five-year minimum established by Section 401 of the Internal Revenue Code.

How can I be sure my profit-sharing plan will be tax-exempt?

Naturally, you will want to know in advance whether or not your plan will be considered tax exempt. You can file a request for a "determination letter" with your district Director of Internal Revenue. This "determination letter" must be accompanied with a verified copy of the trust plan, details of the plan, and facts showing that you have met the requirements set forth in the Code qualification.

When the "determination letter" and accompanying papers have been filed, you will receive an advance ruling that can be used as a guide for your profit-sharing or pension plan. Each time you amend your plan you will need to get another advance ruling to be sure the changes keep your program on a qualification basis for tax exemption. The same procedure is followed as with the establishment of a plan.



PAGE 4 to 7 cubic yard AUTOMATIC Dragline Bucket

● The Page Engineering Company takes great pleasure in announcing the release of our latest brochure covering Page Automatics in the 4 to 7 cubic yard range. This new two-color, four-page bulletin describes in complete detail and illustrates the many outstanding features found only in Page Automatics that have given them their unequaled digging superiority.

Page Engineering, leaders in the development of the ultimate in specialized buckets, constructed to meet exact digging requirements, offers the 4 to 7 cubic yard Series in two groups:

General purpose designed for general contracting operations where a variety of types of material are encountered, and

Heavy duty constructed for digging in rugged material such as hardpan, blasted rock, shale, etc.

James A. Greene

● Appointment of James A. Greene as regional manager, industrial sales, Davey Compressor Co., Kent, Ohio, is announced by L. W. Darling, director of marketing.

An alumnus of Kent State University, Mr. Greene has been affiliated with Davey for 14 years. His Davey experience includes positions as test engineer, service engineer and field service representative.

In his new post, Mr. Greene will direct sales and service on Davey industrial compressors of 2 to 150 h.p. in Ohio and the Pittsburgh trading area. He will make his headquarters at the Davey plant and general offices in Kent, Ohio.

D-9 tractor equipped with Ripper pushing overburden off top seam of coal at E. C. Penoyer & Co.

Tractor Mounted Rippers

Tractor-mounted rippers on crawler tractors in the over 300 HP class are increasing in popularity in reducing production costs of stripping. E. C. Penoyer and Co. of Clearfield, Pa. is one owner who has found use of a ripper with their Caterpillar D9 stripping tractor has cut down blasting by at least 50 per cent.

The large hydraulically controlled ripper exerts a tremendous pressure, which combined with the tractor's weight and power, permits maximum penetration. On one Penoyer job, a top seam of coal is covered by six to eight inches of hard rock which is taken out completely by the ripper. Then there is approximately six feet of rock in the overburden between the first and second seams. This rock is first popped with smaller than usual blasting charges, then ripped and dozed.

The Clearfield stripper found production was increased about 200 tons per shift, due to the ability of the ripper to do a much faster job than the blasting. The Cat D9 with power shift and hydraulic blade tilt cylinder is also used for building truck ramps, and also for backfilling.

Exponents of ripping instead of blasting coal seams claim another important advantage, in addition to

Showing ripper attached to stripping tractor.

Reduce Stripping Costs

cost savings, is the resulting size content of the coal with which shovels and dozers can work faster. Blasting often reduces the coal to fines, they state. Ripped coal enables buckets and scrapers to get a full load.

Some strippers feel that they cannot afford to give up the savings resulting from ripping hard pan, shale, rocky overburden, and coal, according to C. J. Cooper, Earthmoving Consultant for Beckwith Machinery Company of Pittsburgh, Pa. Cooper points out that there are many times when drilling and blasting costs 15 to 20 cents per cubic yard of overburden. If a tractor-mounted ripper can be used, the cost for breakage should seldom exceed 8 cents per yard and is usually much less than this, he claims.

With overburden ratios ranging up to 15 yards per ton, ripping can amount to considerable savings when job conditions permit its use.

In ripping coal there are considerable savings to be realized. The cost of shooting coal is usually 15 cents per ton or more. A D9 with tractor-mounted ripper obtains better breakage at much less cost, Mr. Cooper states.

Caterpillar Will Display New High Production Products at Coal Show

Cost-conscious coal operators attending the 1961 American Mining Congress Coal Show, May 15-18 at Cleveland, will get a firsthand view of several new Caterpillar Tractor Co. products engineered for high productivity at most economical cost.

Earthmoving products to be displayed will include: one of the company's largest track-type tractors equipped with power shift transmission, U-blade, tilt cylinder and ripper; the new 630-PH630 Tractor-Coal Hauler; and the 966 wheel Traxcavator. Diesel engines to be displayed will include the 1673 Truck Engine and the new 950 hp D398, 12-cylinder V-type Industrial Engine. Special displays will include a demonstrator model of the 630 torque divider transmission, a D8 power shift transmission cutaway model and a D330 Engine cutaway.

The new, 420 maximum horsepower 630 Tractor, featuring an exclusive torque divider power shift transmission, has a top speed of 41 miles per hour. Teamed with the Athey PH630 coal hauler, it is capable of moving 60 tons per load to the tipple.

Matched to the new D343 Diesel Engine, the torque divider transmission is shifted with a selection lever as the need for up or downshifting is shown on a dash-mounted shift indicator. The transmission automatically selects the most appropriate of three drives (torque divider, direct, or overdrive) within each of the three speed ranges to meet changing power requirements.

Other machine features include specially developed 28 ply 29.5 x 35 tires; "live" air actuated cable controls; an advanced steering system; and a high degree of service accessibility.

The 140-horsepower 966 wheel Traxcavator with 2¾ yard standard bucket has found wise use since its introduction as a utility, loading and materials handling machine in coal mines around the world.

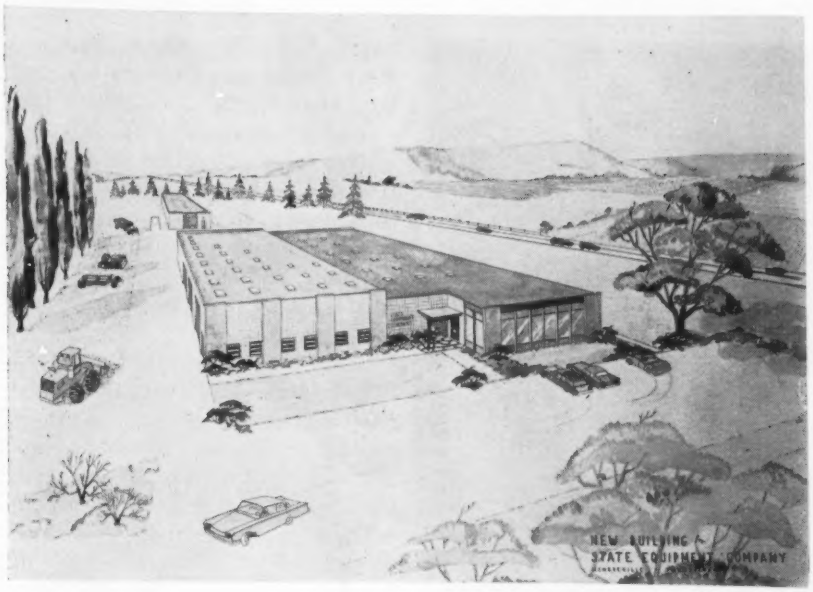
The largest of three wheel Traxcavators manufactured by Caterpillar, the 966 has a maximum dumping clearance of 9′ 8¼″ with the bucket at 45° discharge angle. Features include a power shift transmission, an open operator's cockpit with lift arms mounted forward of the cab, and a bucket wider than the machine to protect hubs and tires from shock and abrasion.

Designed for heavy-duty truck service, the 220-horsepower 1673 Truck Engine has gained wide acceptance for repowering on and off-highway units since its introduction in 1960.

For those interested in the inner workings of the new power shift transmissions featured in Caterpillar's two largest track-type tractors and the recently introduced 630 and 631 wheel Tractors, animated cutaway models will be on display with Caterpillar people at hand to explain the mechanical details.

Caterpillar people expected to attend the show will include: J. J. Keyes, general supervisor, Market Division; R. D. Evans, Market Division consultant; W. A. Haley, Mining Section supervisor; G. B. McLoed and K. L. Supplitt, Mining section; L. W. Smith, manager, Market Division; J. E. McGown and F. C. Mathews, district representatives; E. H. Klump, special representative; and C. B. Rians, Shows and Exhibits.

The new 630 Tractor-Athey PH630 Coal Hauler, designed to move 60 tons of coal from seam to tipple, will be on display in the Caterpillar exhibit at the 1961 Coal Show, May 15-18 at Cleveland. The 420 maximum horsepower engine teams with an exclusive torque-divider transmission to maintain high operator efficiency throughout the working day.



● Two years ago State Equipment Company expanded into Southwestern Pennsylvania and the 4 county Panhandle of West Virginia. By early summer the Branch should be installed in its new building at Monroeville.

We opened for business March 2, 1959 with seven major construction equipment accounts: International Harvester, Hough, Drott, Littleford, Carco, Wain-Roy and Superior Side Boom. We have since added the products manufactured by the Construction Equipment Division of American-Marietta, Smithco Office and Low-Bed Trailers, and the Schramm Air Compressor account.

Our present staff includes myself as Manager; George N. White—Assistant Manager; William A. Voelzke—Service Manager; and James E. Casey—Parts Manager. Our present Sales Personnel and their territories are:

Glenn S. Conklin—All accounts in Beaver, Butler and Lawrence Counties.

Guy M. Davis — All accounts in Washington and Greene Counties in Pennsylvania; Hancock, Brooke, Ohio and Marshall Counties in West Virginia.

Clyde T. Milliken — All Industrial accounts in Allegheny County including the City of Pittsburgh municipal organization.

Harry Nassif — All contracting and governmental accounts in that portion of Allegheny County south of the Ohio and Monongahela Rivers and the Turtle Creek.

H. E. Hemingway

William A. (Bill) Pry — All contracting and governmental accounts in that portion of Allegheny County north of the Ohio and Monongahela Rivers and Turtle Creek.

Loren W. (Buzz) Samsel — All accounts in Bedford, Cambria Indiana and Somerset Counties.

Wayne S. Saxton — All accounts in Armstrong, Fayette and Westmoreland Counties.

It is expected we will move into our new facilities at Monroeville, Pennsylvania, in late June or early July of this year. They are located in the newly developed Industrial Park Area located just off Rt. 22 and immediately west of the Pennsylvania Turnpike, 1 mile north of the Monroeville Interchange.

State Equipment Company purchased 6 acres of ground from Russell P. Miller, Inc. which many people will remember as the Mowrey Farm, and it is interesting to note that our property was used last summer by the well-known evangelist Oral Roberts during his two weeks in Pittsburgh.

A 20,000 square foot concrete block and prefabricated steel building will be constructed for administrative, service, and parts operations. The administrative, sales, and service offices will occupy about 4,000 square feet of the main building; 7,000 square feet will be utilized by the Parts Department for the storage of more than one-quarter million dollars in repair parts inventory.

The remaining footage—complete with a modern steam room and separate paint room — has been assigned to the Service Department in order that we may effect prompt and most efficient complete overhauls.

A continuous row of overhead doors in the service area will help expedite fast service. Machines that require only a few minor adjustments can be moved in and out quickly without disturbing others.

State Equipment Company will be equipped to handle all injection pump repair work through factory-trained personnel and it is our thought also to include the repair and rebuilding of generators and starting motors.

In addition to the main building, there will be a prefabricated, all-steel unit of 4,000 square feet for the storage of new machines not on display, the larger and more massive parts components, oils and greases, and completely rebuilt and re-worked used machines.

Ample bituminous paved customer parking areas will be provided. The runway immediately adjacent to the service shop will be

Dealer management representatives meeting at Springfield, Ill., got a peek into the future when this big Allis-Chalmers experimental dual engine motor scraper was shown. Powered by two Allis-Chalmers 340 horsepower diesel engines, the giant earthmover has a capacity of 40 cubic yards heaped. The all-hydraulic unit, now undergoing extensive development tests in actual construction conditions, weighs 95,000 pounds and has a speed of 30 miles per hour. It is one of many experimental construcfion machinery units in the broad Allis-Chalmers research and development program.

paved with 12" concrete. The very large display area for both new and used equipment—4,500 square feet —is of 8" compacted slag.

Two acres will be for demonstration and testing because it is our belief that no machine — either new or used — should be delivered to a customer without a trial run to be sure the machine is in perfect operating condition.

State Equipment Company — Pittsburgh — has 7 factory-trained road servicemen who, with their pick-up trucks, are properly equipped with right tools to do the job in the field at a moment's notice. In addition to these highly seasoned veterans, State has an average of from 8 to 10 "In the Shop Mechanics" who, too, want to serve the customer in the most efficient manner possible.

The parts Department, under James Casey, has men with years of training with the previous International Harvester Distributor, who are willing and able to help our customers at any time, whether it be day, night, or a week-end.

Appropriate landscaping will be provided to make this newest of the "State Empire" one of the most attractive distributor outlets in the Tri-State Area.

NEW & USED . . .
industrial and marine diesel engines and diesel electric generators
★ Parts, sales and service for Detroit Diesel Engine Division of General Motors (only genuine GM parts used)
★ Package power units . . . or fan to flywheel
★ Rebuilders of Series 51, 53, 71 & 110 engines
★ Conversions a specialty
★ Home of the Hydro-Starter
FEATURING FLAT-RATE LABOR CHARGES
GM GENERAL MOTORS DIESEL POWER
KEYSTONE
AUTHORIZED DISTRIBUTOR
KEYSTONE DIESEL ENGINE CO., INC.
RT. 19 (PERRY HIGHWAY), WEXFORD, PA. WEstmore 5-1511

The new 5-gallon emergency drinking water container, manufactured by the Container Division, Jones & Laughlin Steel Corporation, has a one-piece polyethylene liner which keeps water fresh for 20 years. Distribution of the steel container will be through water bottlers, who will fill and seal the container under aseptic conditions.

● A uniquely designed unit that is transistorized and utilizes existing inter-plant or mine telephone lines is now available from Mine Safety Appliances Company, Pittsburgh.

The newly developed M-S-A Pager is self-contained and has two primary functions—to call or page over a loud speaker and to communicate semi-privately by telephone.

It is highly adaptable for use in mines, factories, refineries, mills and other locations.

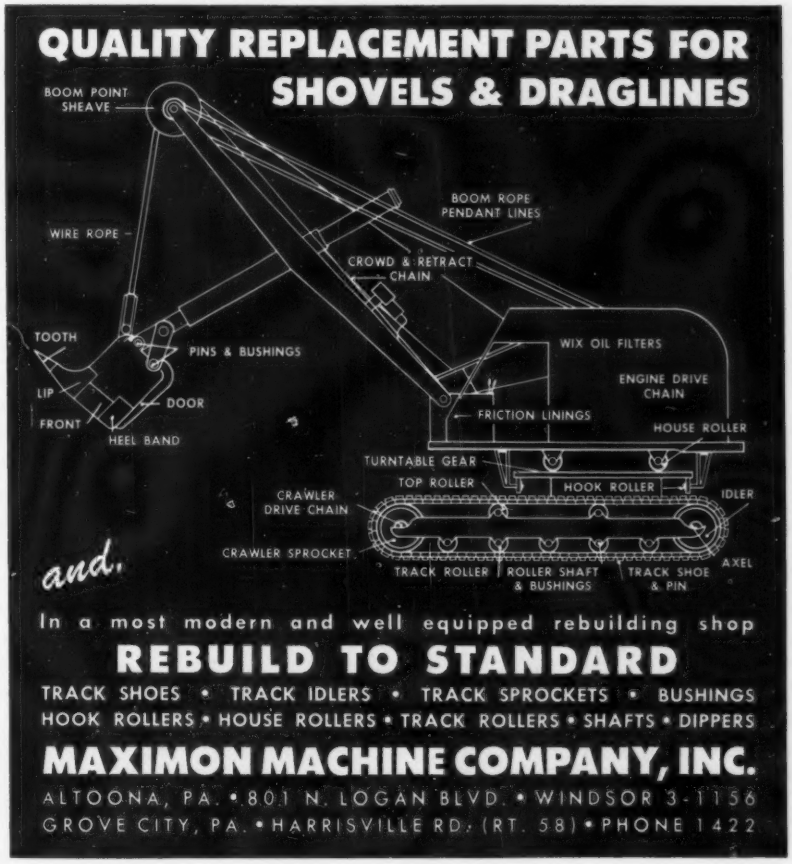
This combination telephone and loud speaker is individually powered by two dry cell, long life batteries, employed only when the M-S-A unit is in use. The transistors have no filaments and are vibration proof. A two-conductor wire connects Pagers to each other, and to existing telephone lines.

M-S-A Pager

Ten or more units can be installed on a single line, making it quite simple for a key man to be paged from a number of points simultaneously. In answering, a lift of the handset transforms the Pager into a telephone for semi-private conversation.

Each of the easily mounted units has two control adjustments—inside an 8 by 10½ by 7-inch aluminum case—that adapt it to characteristics of the telephone line in use. Amplification from its transmitting amplifier enables the Pager to transmit greater distances — as much as 10 miles over existing telephone lines.

Allis-Chalmers HD-21 cuts drainage pond at P&N Coal Co. mines in Penfield.



Open Pit Association Names Conservation Director

Anouncement was made today by the Central Pennsylvania Open Pit Mining Association of the appointment of a Director of Conservation. W. G. Jones, Forestry Consultant of Philipsburg, Pa. was named to the post.

W. G. Jones

His duties will be to assist Association members in their reclamation and planting problems, and to make certain that reclamation planting work is better than the standard required by law.

Current Hybrid Poplar research by the U. S. Forest Service on spoil banks will be one of many projects under his direction. One of his chief jobs will be as liason between the Association members and the various State agencies concerned with stripmining . . . the Department of Forests and Waters, Mines and Mineral Industries, the Game Commission and Sanitary Water Board. In cooperation with these agencies it will be his work to foster and direct all efforts toward a better program of reclamation in the Bituminous region of Pennsylvania, which is already a model for such work in the other 23 states where stripmining of coal is carried on. Mr. Jones, who will work largely in the field, will operate out of the Association's Philipsburg headquarters.

Jones is a 1929 graduate of Bucknell University where he studied Forestry and was graduated with honors in Biology. Since that time he has taken additional work at the Pennsylvania State University College of Agriculture. He has been active in the Tree Farm movement, operating his own Tree Farm in Clearfield County since 1946, and since 1948 has been engaged in stripmine reclamation work for Robert Bailey and other operators of Central Pennsylvania.

He is the author of numerous magazine articles, and in 1959 wrote and illustrated a booklet on Stripmine Reclamation, considered a standard work in this field.

At present he is engaged in producing a booklet proving how stripmining is benefitting and furthering Pennsylvania's Clean Streams program.

He is a frequent speaker on the subject of reclamation and conservation throughout the State, and last year produced, in cooperation with the Pennsylvania State Agricultural Extension Service, a color-sound movie, "From Spoil Bank to Tree Farm."

Mr. Jones is an active member of many national societies devoted to Conservation, among which are the American Forestry Association, Pennsylvania Forestry Association, National Audubon Society, Pennsylvania Christmas Tree Growers, The Wilderness Society and the Outdoor Writers Association of America. He is a member of the American Museum of Natural History.

An important part of Jones' work will be to keep the public informed of the important and little-understood reclamation work being done by the Central Pennsylvania Open Pit Mining Association, its cost and benefit to the public at large, and to make clear the vast public benefits of this eighty million dollars a year industry in the heart of Pennsylvania.

• Swift replacement of machine components at only the cost of repair is the main advantage to equipment owners of the Parts Assembly Exchange Program offered by Caterpillar dealers. Complete explanation of the program is offered in "Avoid Delay the Modern Way," a new booklet just published by Caterpillar Tractor Co.

Under a Parts Exchange Assembly Program, a machine owner orders a needed replacement assembly from his dealer. The dealer delivers the rebuilt component, taking the customer's unit into the shop to be put in working condition. The owner then is billed for repair costs on his old unit, which are about the same as if he had repaired the assembly himself. Sold as "Bonded Buy" units, exchange assemblies are guaranteed in writing and backed by a $5,000 bond.

Besides explaining how the plan works, "Avoid Delay the Modern Way" includes stories from owners, mechanics and job superintendents on how exchange assemblies have helped them cut down time and save money. Copies of the eight-page booklet may be obtained from Caterpillar dealers or by writing the Advertising Division, Caterpillar Tractor Co., Peoria, Illinois and requesting form D115.

• Allis-Chalmers has redesigned and restyled the TS-160 motor scraper — the smallest in the company's all-hydraulic line — to increase the unit's capacity to eight and one-half struck and 11 cubic yards heaped and the payload to 13 tons.

It is powered by Allis-Chalmers 155 horsepower supercharged diesel engine and maintains a highly favorable 18.2 horsepower-to-struck yardage ratio.

The TS-160 also features a "new look," conforming it to the other units in the company's line. The hood and radiator grille are restyled to give a massive rugged appearance.

The new motor scraper also features all-hydraulic operation, and double-acting steering jacks and multiplier links to give the unit full power steering over the entire steering range. A 90 degree, non-stop turn can be made in less than 25 feet.

Low, wide bowl design, coupled with double-acting bowl lift jacks, assure heaping loads fast, even in hard-to-penetrate materials. Smooth, high-speed spreading is possible with the scraper's forced ejection system. As the ejector moves toward the cutting edge, dozing material out of the bowl, the apron moves forward and upward to a maximum of over seven feet, providing a large opening for the discharge of material without hanging up.

The TS-160 also has the "Kon-Tork" differential which automatically controls the amount of torque delivered to each drive wheel in relation to traction requirements. It consists of only five moving parts for simple, dependable operation and provides maximum tractive effort in all types of material and conditions.

Comfort and convenience features, like the adjustable bucket-type foam rubber seat and easy-to-reach controls, have also been retained.

To permit greater use-value, the scraper (S-160) is interchangeable with the body of the recently introduced TR-160 rear dump wagon which has a 12-ton capacity.

STATEMENT OF OWNERSHIP

COAL MINING is published monthly at 4575 Country Club Dr., Pittsburgh 36, Pa. and is entered as second-class mail at Erie, Pa.

Publisher, P. F. Jasik, 4575 Country Club Dr., Pittsburgh, Pa.; Editor, P. F. Jasik, 4575 Country Club Dr., Pittsburgh, Pa.; Managing Editor, P. F. Jasik, 4575 Country Club Dr., Pittsburgh, Pa. Business Manager, P. F. Jasik, 4575 Country Club Dr., Pittsburgh, Pa.

The owner is P. F. Jasik, 4575 Country Club Dr., Pittsburgh, Pa., and there are no other stockholders, bondholders, or mortgagees.

P. F. Jasik

Sworn and subscribed before me this 12th day of October 1959.

Leo M. Joyce
Notary Public

FOR SALE

GM Diesel 60 KW Generator Set
GM Diesel 100 KW Generator Set
GM Diesel 275-300 KW Generator Set

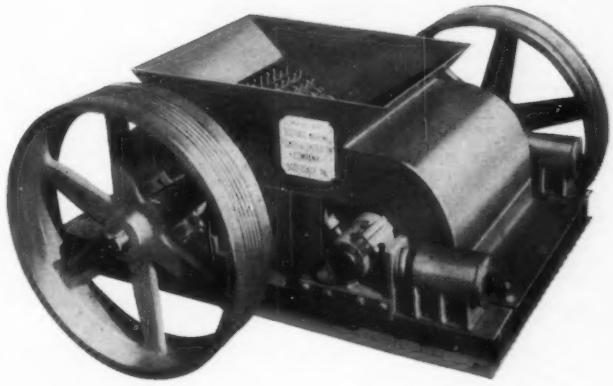
KEYSTONE DIESEL ENGINE CO., INC.
Route 19 — Wexford, Pa.
ST 2-2224 or WE 5-1511

SALE

Rebuilt One Yard Marion Model 331 Coal.
Loading Shovel. New Diesel Engine: new Caterpillar Tracts.

STANLEY AUTO WRECKING COMPANY
RD 2, Lowellville, Ohio

SCOTTDALE DOUBLE ROLL CRUSHERS



ECONOMICAL - *takes less power*

EFFICIENT - *more uniform product*

The powerful chilled cast iron double rolls of the 63 special are covered with hundreds of steel teeth which speedily bite, chew and shred the coal to any wanted size from ¾" to 8" . . . fines are held to a low minimum.

This 2 motor drive machine has gears but is equipped with 2 easily maintained grooved flywheels. One welded steel hopper is mounted on a 46" x 65" welded steel base. Weighing only 4800 pounds and powered with 2—10 H. P. motors the crusher has a top speed of 150 RPM's with a capacity of 60 to 250 tons per hour. Comes with bronze bushed journal bearings.

Send for literature.

SCOTTDALE MACHINE, FOUNDRY & CONSTRUCTION CO.

DEPT. CM BOX 51 SCOTTDALE, PA.

GUYAN MACHINERY CO., Logan, W. Va. stock SCOTTDALE CRUSHERS

PROUD OF BEING "YES-MEN"

Whenever anyone asks us if we have the best buys from the largest stock of latest type mining epuipment, we always say "YES." That goes for loaders, cutters, shuttle cars, substations, locomotives, mine cars, belt lines, tipples, copper wire, relaying rails, etc. from one item to a complete mine. "Known by the Reliability of our Service as well as the Quality of our Product."

JOY EQUIPMENT—REBUILT

3—Joy 14BU 9AE Super Loaders — 26" Hi — New 1958.
3—Joy 14BU Loaders, low pedestal, 7AE, 1956 & 57.
6—Joy 14BU Loaders, medium pedestal, 7RBE.
1—Joy 14BU 7CE high pedestal, 7AE, 1956 & 57.
1—Joy 14 BU 3PE Loader.
2—Joy 12BU Joy Loaders complete with Piggybacks.
2—Joy 12BU Loaders, 9E latest type 250 V. DC.
3—Joy 12BU Loaders, 220/440 Volt AC.
1—Joy 20BU Loader, latest type.
4—Joy 11BU Loaders, latest type.
1—Joy 8BU Loader, 34" overall height.
2—Joy 8BU Loaders, 220 V. AC.
1—Joy curved Bar Head for 14BU. complete.
6—Reliance 24-J Motors, 7½ H.P.
4—Reliance 38-J Motors, 10 H.P.
4—Reliance 40J 15 H.P. Motors.
20—9-J Motors, 4 H.P.
2—Goodman 660 Loaders on Crawlers, 440 V. AC. like new.
1—Goodman 660 Loader on Crawlers, excellent 250 V. DC.
1—Goodman 665 Loader on Crawlers, latest type 250 V. DC.
1—Goodman 865 Loader, 26" hi. Rebuilt. 250 V. DC.
4—Joy 8SC Shuttle Cars. rebuilt.
6—8SC Shuttle Cars, as removed from service.
4—Joy 6SC Shuttle Cars, rebuilt, latest type
1—Joy 5SC Shuttle Car, Excellent.
2—Joy 32E9 Shuttle Cars.
2—Joy 32E10 Shuttle Cars, rebuilt.
6—Joy 32E15 Shuttle Cars, rebuilt.
4—Joy 32E16 Shuttle Cars, rebuilt.
10—Joy 42E16 Shuttle Cars, rebuilt.
1—Joy CD-22 Drills, on rubber, like new.
6—Joy T-2-5 low pan Crawler Trucks, rebuilt.
1—Joy T-2-6 low pan Crawler Truck with reel.
2—Joy T-1, Standard Crawler Trucks, 220 AC.
1—Joy T-1 Standard Crawler Truck, 250 DC.
4—Joy 11-B Cutting Mach., like new, 35 & 50 HP.
1—Joy 7-B Cutting Mach., like new, 250 V. DC.
2—Goodman 212 Cutting Machines, 19" high.
1—Goodman 312 Cutting Machine, 17" high.
3—Goodman 412 Cutting Machines, 19" high.
1—Goodman Machine on Crawler, 31" high. All hydraulic.
6—Goodman 512 Machines with Bugdusters.
6—Goodman 612 Cutting Machines, 250 & 500 volt.
1—Jeffrey 70 URB rubber tired Cutter. Universal head, perfect condition.
1—Goodman 2410 Rubber Tired Cutter, Universal head, like new.
3—Joy 11RU Rubber Tired Cutters, with bugdusters. Universal heads, dual tires, like new. 250 V. DC.
1—Joy 10RU Rubber Tired Cutter, Universal head. 220/440 V. AC. Perfect
4—Joy 10RU Rubber Tired Cutters, Universal Head, 250 V. DC. Rebuilt or as is.
6—7AU's on track, Universal head.
2—Jeffrey 29UC Cutting Machines, Universal head, cuts anywhere in seam, 38" high, on Crawlers, 250 volt D.C.
1—Jeffrey 29LC on Crawlers, rebuilt.

LOCOMOTIVES

1—Goodman 6 ton, 93-A, 27" high, armor plate frame.
1—Jeffrey 15 ton MH-77 locomotive, armor plate frame.
7—Jeffrey, 13 ton, type MH-110, 36". 42" and 44" ga.
2—Jeffrey 10 ton, type MH-110, 42" and 44" ga.
2—Jeffrey, 10 ton, type MH-78, 42" and 44" ga.
2—Goodman 8-30 and 10-30 Locos., 26" above rail.
1—Jeffrey MH-150, 6 ton, 26" overall height, rebuilt with reel.
12—Jeffrey, 6 ton, type MH-88, 42", 44" and 48" ga.
4—Jeffrey, 8 ton, type MH-100 2½" armor plate frames.
3—Jeffrey, 4 ton, type MH-96, 42", 44" and 48" ga.
1—G.E., 4 ton, type 825 Locomotive, 22" high.
10—G.E., 6 ton, types 801, 803, 821 Locomotives. 42", 44" and 48" ga
1—G.E., 8 ton, type 822 Locomotive, 44" ga.
3—G.E., 10 ton, type 809 Locomotives, 42", 44" and 48" ga.
2—G. E. 13 ton, type 829 Locomotives, armor plate frames.
1—Goodman 91A Locomotive, 8 ton, 26" overall height.
2—Goodman, type 33, 6 ton, 44" and 48" ga.
3—Westinghouse type 902, 4 ton, 42" and 48" ga.
2—Atlas Battery Locomotives, 36" ga.
1—Atlas Trolley Locomotive, 4 ton, 24" high.
2—Westinghouse, type 904, 6 ton, 44" and 48" ga.
2—Westinghouse, type 906, 44" and 48" ga.
2—Westinghouse, type 907, 10 ton, 44" and 48" ga.
3—Westinghouse 908, 13 ton, Locomotives, 42" and 48" ga.
8—Jeffrey MH-78 Locomotive Units, cheap.
4—Jeffrey MH-88 Locomotive Units, real bargains.
6—Jeffrey MH-100 Locomotive Units, resonable.
3—Plymouth Diesel Locomotives, 8 and 10 tons, 42" and 44" ga.
Locomotive Trucks & Spare Armatures for the above.

TIPPLE EQUIPMENT

1—All Steel 5 Track Tipple, new 1957, complete with washer, silo, oil treating system, all bolted construction.
1—Complete Five Track Tipple with Washers and Air Tables.
1—Complete stoker plant, all steel.
2—Complete Tipples, 3 & 5 track, steel and wood.
3—Cleaning Plants, 1 ea. McNally, Roberts and Schaefer, Jeffrey Washers and Air-Flo Tables.
4—Complete Aerial Trams for coal or refuse.
3—Complete Rope and Button Lines.
2—Monitor Lines complete with Drums, excel.
1—Allis-Chalmers 5 x 12 Rippflo Vibrator.
1—Allis-Chalmers 4 x 12 Low-Head Vibrator.
1—Robins Gyrex Vibrator, 4 x 10.
10—Belt and Apron type Loading Booms.
6—Shaker Screens.
1—Robins Car Shakeout.
1—Gundlach Crusher, like new.
20—Crushers, various sizes—Jeffrey, McLanahan & McNally.
4—Mine Scales, 10 & 20 ton.
3—Truck Scales, 25 to 40 ton, late type.
Feeders, Belt and Drag Conveyors, Car Retarders.

CUTTING MACHINES

1—Joy 10RU Rubber Tired Cutter, Universal head, 220/440 volt AC, Perfect.
3—Joy 10RU Rubber Tired Cutters, Universal head, 250 V DC, as is or rebuilt.
2—Joy 11RU Rubber Tired Cutters, 250 V. DC. rebuilt.
1—Goodman 2410 Rubber Tired Cutter. Universal head, new 1956. Excellent.
2—Jeffrey 29UC Universal Machines on Crawlers
1—Goodman on Crawlers, 31" overall height.
3—Baby Goodman 212's, rebuilt. 250 V. D. C.
4—Goodman 312 Cutting Machines, 17" high.
3—Goodman 412 Cutting Machines, 19" high.
6—Goodman 512's with Bugdusters, like new.
4—Goodman 512's, rebuilt, or as removed from service.
6—Goodman 612,s—250 & 500 Volt A. C.
3—Goodman 112's, 220/440 Volt A. C.
1—Joy 7-B Cutting Machine, 250 Volt D. C.
4—Joy 11B Cutting Machines, rebuilt, 35 & 50 H. P.
6—7AU's, on track, Universal head.
10—Goodman 12AA's and 112AA's, 220 V. D. C.
2—Goodman 324 Slabbers.
2—Goodman 724 Slabbers.
2—Goodman 824 Slabbers.
6—Jeffrey 35L's, like new, 250 V. D. C. 17" high.
2—Jeffrey 35L's, on low vein trucks.
2—Jeffrey 35L's, 220/440 A. C.
3—Jeffrey 35BB's 220/440 A. C.
15—Jeffrey 35B's and 35BB's 250 V. D. C.
2—Jeffrey 29B's on track.
10—Jeffrey 29C's track mounted.
2—Jeffrey 29L's, on Crawlers. Excellent.
4—Sullivan CE7, 220/440 V. AC.

CONVEYORS

2—Goodman 97HC 30" & 36" Rope Belts, 1600' perfect with or without rubber.
2—Jeffrey 52-B tandem drive 30" Belt Conveyors 1,500'.
1—Jeffrey 52-B tandem drive 26" Belt Conveyor.
1—Joy 30" Underground Belt Conveyor. Excell.
1—Goodman 97-C, 30" tandem drive.
1—Goodman 97-C, 26" Conveyor. 1,000 long.
1—Robins 36" tandem drive, with or without structure.
1,200' Robins 36" Underground Structure, like new.
5,000'—52-B Belt Structure 30".
1,000' Conveyor Belt, 42".
4,000' Conveyor Belt, 36".
3,000' Conveyor Belt, 30".
4,000' Conveyor Belt, 26".
8—Jeffrey 61AM 12" Chain Conveyors, 300'.
2—61EW Elevating Conveyors.
2—61WH 15" Room Conveyors, 300'.
2—Joy 15" Room Conveyors, 300'.
2—Joy 20" Conveyors, 300'.
4—Joy Ladel UN-17 Shakers.
10—Goodman G-12½ and G-15 Shakers.
1,000' Goodman 18" Flat Belt Conveyors, tandem drive any length, Perfect.

CONVERTORS AND DIESEL PLANTS

2—500KW G. E. Stationary Rectifiers.
4—1,000KW Stationary Rectifiers.
2—100KW. G. E. TCC-6's, 275 V., Rotary Converter.
1—150KW. G. E. HCC-6 275 V., Rotary Converters.
1—150KW. 6 phase. Allis-Chalmers Rotary Converters, 275 V. D. C.
2—200KW G. E. HCC-6's, Rotary Convertors, 275 V. D. C. Steel frames, Newly rewound.
3—300KW G. E. HCC-6's Rotary Converters, 275 V. D. C. Like New.
2—300KW Westinghouse, 6 phase, Rotary Converters, 275 V. D. C.
2—500KW. West. Rotary Converters, 275 V. D.C. Perfect.
2—200KW Westinghouse Rotary Converters, 275 V. D.C. Newly Rewound.
(All the above with 6900/13000 and/or 2300/4000 primary transformers).
2—100KW MG Sets, 275 V. DC.
2—150KW MG Sets, G.E. and West., 275 V. D.C.
1—200KW MG Set, rebuilt, 275 V. D. C.
1—200KW MG Sets, G. E. perfect, 275 V. D. C.
2—300KW G.E. MG Sets, like new.
1—300 KW Westinghouse MG Set 275 V. D. C.
1—300KW Westinghouse, 600 Volt MG Set, rebuilt
2—300KW Westinghouse, 600 volt, 6 phase. Rotary Converters.
2—500KW Westinghouse, 600 volt, D.C., 6 phase, Rotary Converters.
2—500KW HCC-6's, Rotary Converters, 6 phase, 600 V. D.C.
1—GMC-471 Diesel with 60KW, 250 V. D.C. Gen.
3—GMC-671 Diesels with 75 & 110KW, 250 V. DC, Gen.

LOADING MACHINES

16—Joy Loaders, 14BU, 12BU, 8BU, 11BU, 20BU.
5—Joy 12BU9E Loaders, 220/440 V. A.C. Excellent.
3—Joy 12BU9E Loaders, latest type.
2—Joy 12BU with Piggyback Conveyors.
2—Goodman 865 Loaders, 26", on crawlers.
1—Goodman 665 Loader, on Crawlers, rebuilt.
2—Goodman 660 Loaders, 440 V. A. C. perfect.
1—Goodman 660 Loader, on Crawlers, 250 V. DC.
1—Goodman 460, on track, rebuilt, all hydraulic.
2—Jeffrey 61 CLR's on rubber, 26".
3—Jeffrey L-500 Loaders.
2—Myers Whaley, No. 3 Automatic Loaders.
2—Clarkson Loaders, 26" above rail.

MISCELLANEOUS

150 Tons Copper—4/0 and 9 Section Trolley 1/0, 2/0, 4/0 Stranded, 500 MCM, 750 MCM, 1,000,000 MCM Insulated.
1—Each 4', 5', 6' & 8' Hi Pressure Joy & Jeffrey latest type Fans.
1—Complete Five Track Tipple with washers and Air Tables.
5—Complete Tipples, 3 to 5 Track. Wood and Steel.
Steel trestles for drop bottom cars.
All Steel Armco Buildings.
20—Jeffrey Molveyors on rubber tires.
1—¾ Yard Shovel and Back-Hoe.
1—¾ Yard Crawler Crane.
Battery Supply Tractors, Rubber Tired.
1—Cantrell Air Compressor on rubber tires.
10—Air Compressors, 1 H.P. to 40 H.P.
2—Joy self-propelled rubber tired comp., 240 cu. ft.
2—Acme self-propelled rubber tired compressors, 130 cu. ft.
40—Mine Pumps, all types.
1—Differential 40 passenger Man-Trip car.
6—MSA Rock Dusters, Joy Roof Drills, Shroeder Coal Drills.
2—Phillips Carriers, 44" and 48" ga.
1—Barber-Greene self-propelled Bucket Elevator.
Pipe, Plastic, Steel Transit, all sizes 1" to 6".
25,000 Roof Bolts, all types.
300—Mine Cars, drop bottom, 42" ga.
90—Mine Cars. drop bottom, 44" ga.
50—Mine Cars, drop bottom 48" ga.
100—Mine Cars, 18" high, end dump, 44" ga.
300—Mine Cars, end dump and drop bottom, 20" high, 48" ga.
1—10 ton Mine Car Scale with Recorder.
4—Brown Fayro 15 HP latst type Hoists.
15—Brown Fayro HKL and HG Car Spotters.
1—Brown Fayro Hydraulic Car Spotter.
1—12 ton Differential Slate Larry.
Incline Hoists, 25 to 50 H. P.
1—Jeffrey 5', 6' and 8', Like New, Aerodyne Fan
2—Storage Tanks, 4,000 Gallons.
2—Storage Tanks, 10,000 Gallons.
500 MCM, 750 MCM 1000 MCM Bare & Insulated.
10,000 Five Gallon G. I. Cans, screw lids.
2,500 tons Relaying Rail, 25lb., 30lb., 40lb. 50lb., 60lb., 70lb., 90lb., 100lb.
Thousands of feet of rubber covered three conductor cable. All sizes.
300—Transformers from 1 to 300 KVA, 110 to 13,000 primary volts.
400—Electric Motors, 3 to 250 H.P.
Huge Stock of Mine Supplies.
600—MSA Mine Lamps, Chargers, etc.
4—Mine Scales, 10 & 20 tons.
5 Truck Scales, 25 to 40 tons, late type.
Mack & International tandem dump trucks.
THOUSANDS OF OTHER ITEMS.

WE BUY — SELL — TRADE
We Own What We Advertise

J. T. FISH

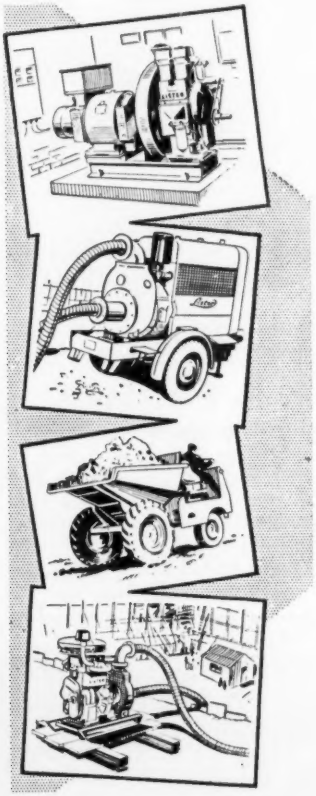
Phone PL 2-4400
LOGAN, WEST VA.

● A new Bucyrus-Erie 1054-WX wheel excavator is partially responsible for increasing annual bituminous coal output by a million tons, at Peabody Coal Company's River King mine, Freeburg, Illinois.

This is the latest, and one of the largest, machines of its type to be put in use in this country. The giant excavator weighs over three million pounds and stands 176 feet high. Working in conjunction with a 70-yard shovel, it digs material on one side of a 100-foot open pit, then carries the dirt on 54" R/M conveyor belts, operating at over 1000 fpm, to the pile some 400-plus feet away.

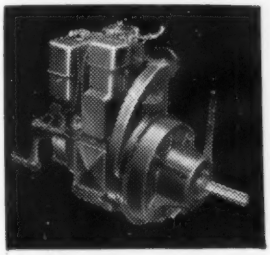
Spoiled overburden races up the stacking ladder at 1100 fpm. Extra flexibility built into the R/M belt for high speed operation gives Bucyrus-Erie machine 5100 tons per hour capacity.

According to the manufacturer, the most important statistics about the earthmoving capacity of the wheel excavator are those concerned with the conveyor system. It is the speed of the belts, times their capacity which determines the maximum performance possible. Two conveyors are incorporated in the 1054-WX machine. One, the digging ladder, is on the business end of the machine. The other is the stacking conveyor, mounted on the stacking ladder. Both belts are 54" wide. The 10-ply digging belt totals 203 feet; the 7-5 stacker belt is 732 feet long. Both were made by Raybestos-Manhattan.



LISTER

power for all purposes



AIR-COOLED DIESEL ENGINES

1½ to 72 HP

Simplicity, dependability, long life, continuous trouble-free service are stressed in these unbelievably versatile, air-cooled compact LISTER Diesels, exceptionally adapted to your requirements.

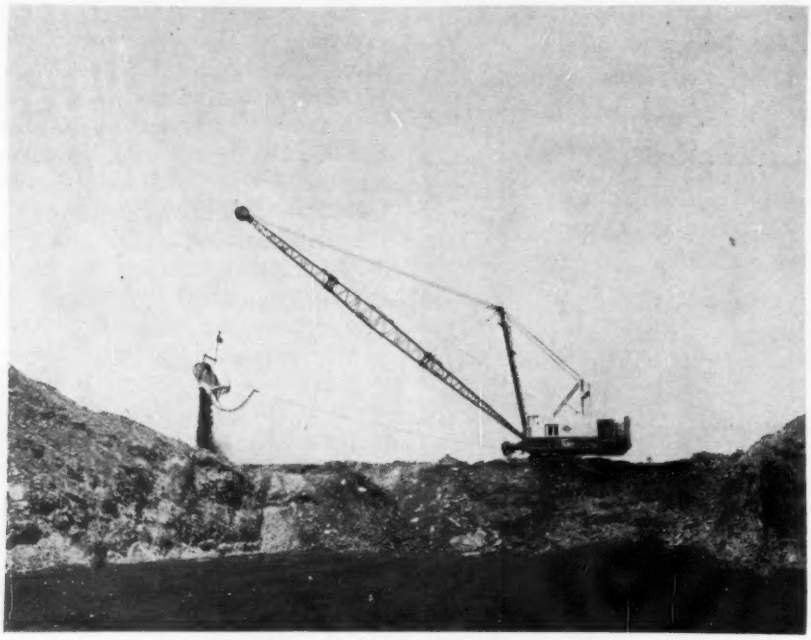
See these engines at Booth 2574, Coal Mining Show, Cleveland, May 15-19.

Write for name of nearest distributor

LISTER-BLACKSTONE, Inc.

42-32 21st Street, Long Island City 1, N. Y. STillwell 6-8202

Canadian Lister-Blackstone Ltd., 1921 Eglinton Ave. E., Toronto 13, Ont.



Lima 2400 . . . Hansel Coal Co., Houtzdale.

TractoLoader TL-20D . . . Robert Bailey, Morrisdale.

ADVERTISERS' INDEX

APRIL, 1961

Beckwith Machinery Company 2nd Cover, 2, 3, 15 to 18, 31, 3rd Cover
Davey Compressor Co. 1
Fish, J. T. 28
Highway Equipment Co. 1st Cover, 4, 4th Cover
Keystone Diesel Engine Co., Inc. 24, 27
Lister-Blackstone, Inc. 29
Manitowoc Sales & Service Corp. 32
Marion Metal Products Co. 10
Maximon Machine Company 25
Ohio Machinery Co. ..... 15 to 18, 31
P. R. Paulick 30
Salem Tool Company, The 6, 7, 31
Scottdale Machine, Foundry & Construction Co. 27
Stanley Auto Wrecking Co. 27
Swabb, Equipment Co., Inc. 9, 30
Walker Machinery Co. ..... 15 to 18, 31

HEAVY EXCAVATION EQUIPMENT
Draglines, Shovels, Cranes, Drills, Trucks

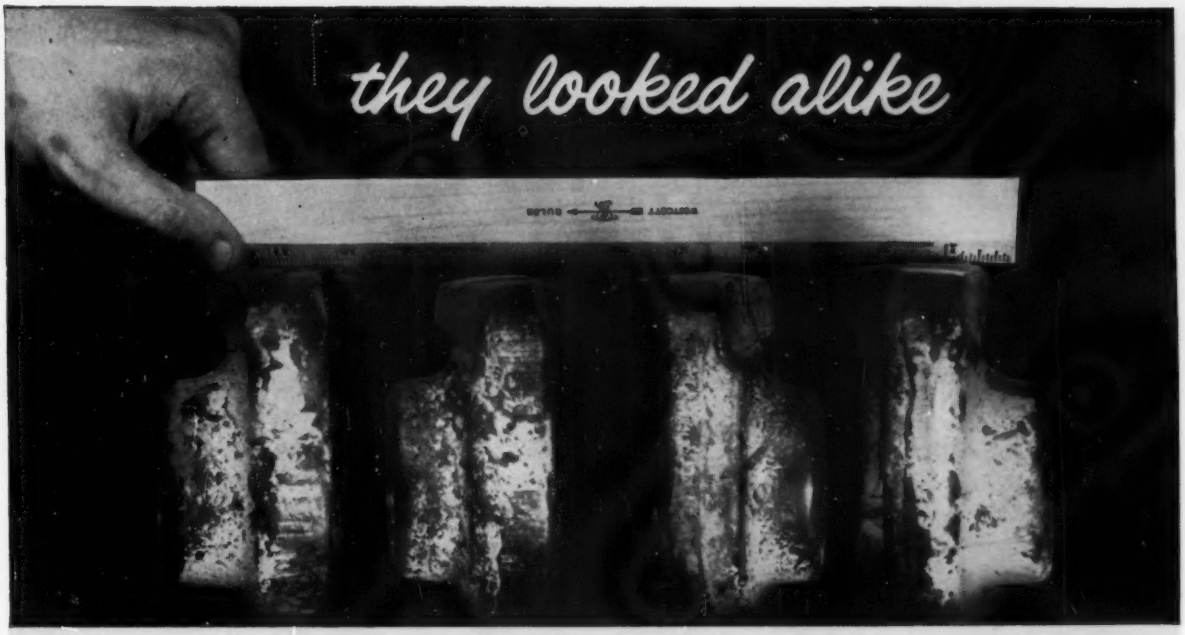
9-W B.E. Elec. Drag, 200', 8 yd. or 160', 10 yd.
9-W B.E. Diesel Drag, 165', 12 yd.
7-W B.E. Diesel Drag, 140', 7 yd.
7400 Marion Diesel Drag, 175', 13 yd.
71-B B.E. Crane with 160' boom
625 Page Diesel Drag, 150', 10 yd.
631 Page Elec. Drag, 200', 8 yd.
621-S Page Diesel Drag, 125', 7 yd.
200-W B.E. Diesel Drag, 125', 6 yd.
2430 Lima Elec. Drag, 130', 6 yd.
2400 Lima Diesel Drag, 130', 6 yd.
7200 Marion Diesel Drag, 135', 5 yd.
4500 Manitowoc Drag. 120', 5 yd. & 140', 4 yd.
120-B B.E. Elec. Drag, 115', 5 yd.
111-M Marion Drag, 100', 4 yd.
1055 P&H Diesel Drag, 80', 4 yd.
1601 Lima 4 yd. Shovel/Drag
3900, 3500 & 3000 Manitowoc Cranes
5560 Marion 26 yd. Elec. Shovel
5323 Marion 18 yd. Elec. Shovel
190-B B.E. 8 yd. Elec. Shovel
151-M Marion 7 yd. Elec. Shovel
1600 P&H 6 yd. Elec. Shovels
170-B B.E. 6 yd. Elec. Shovel
4161 Marion 6 yd. Elec. Shovel
2400 Lima 6 yd. Std. & H.L. Shovels
120-B B.E. & 4121 Marion 4 yd. Elec. Shovels
4500 Manitowoc 5 yd. H.L. Shovel
1055 P&H 3 yd. H.L. Shovel
1201 Lima 3½ yd. Standard Shovel
111-M Marion Standard & H.L. Shovels
3500 Manitowoc Standard & H.L. Shovels
54-B B.E. Standard & H.L. Shovels
Model T-650 REICHdrill Truck Mtd. Rotary and Down-The-Hole
Ingersol-Rand Truck and Crawler Mtd. Drillmasters
Keystone No. 50 Truck Mtd. Stardrill
McCarthy & Compton Coal Auger Drills
Euclid Trucks, Dozers, Attachments, etc.

Frank Swabb Equipment Co., Inc.
313 Hazleton National Bank Bldg.
Hazleton, Pa. — GLadstone 5-3658

P. R. PAULICK
Consulting Mining Engineer
Specializing: —
Cost Control • Management
Modern Mine Mechanization Systems
Economic Surveys • Appraisals
Domestic and Foreign Work
2440 South Park Rd.
Bethel Park, Pa.

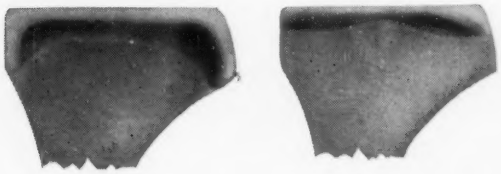
SALEM "HERCULES" AUGERS FOR ELECTRIC DRILLS
Made To Withstand High Drilling Speed Whip And Torsional Strain Of Electric Drills

Drills holes faster — Will not snap off shank or chip points — Outlasts four or five ordinary augers
THE SALEM TOOL COMPANY SALEM, OHIO, U.S.A.



...WHEN THEY WERE NEW!

But now there's a big difference – and the difference can save you money! This is a photograph of two brands of track links after 2000 hours of work. All were used on the *same D8* Tractor, with tracks switched at 772 hours. Both brands had induction hardened rails, but the center links cost about 9% less *originally* than the Cat links on the sides. Now, after 2000 hours, those in the center show 50% *more* wear than the links made by Caterpillar. What seemed to be a 9% savings at the start turned out to be a substantial loss.



CAT OTHER

WHAT MADE THE DIFFERENCE? Take a look at photographs of etched cross sections of *production* links made by Caterpillar and the other manufacturer. See how deep and uniform the wear case is on top *and sides* of the Caterpillar rail as shown by the lighter tone – hard as a *good* ball peen hammer head! The other brand's wear case varies both in depth and hardness – and it quickly showed up when put to work.

This is just one example of the *quality* difference in genuine Caterpillar undercarriage parts – differences that can make *you* greater profit. Ask our Undercarriage Specialists for the details. Get the full story on our money-saving options and recommendations *tailored to your job conditions.* Take advantage of our Custom Track Service. Call us today.

SEE YOUR DEALER

CATERPILLAR

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

PARTS YOU CAN TRUST

...COST LESS PER HOUR

BECKWITH MACHINERY COMPANY
Pittsburgh, Clearfield, Bradford, Erie, Somerset, Pa.
Clarksburg, W. Va.

CLEVELAND BROS. EQUIP. CO., INC.
Harrisburg, Wilkes-Barre, Frackville, Philipsburg, Pennsylvania

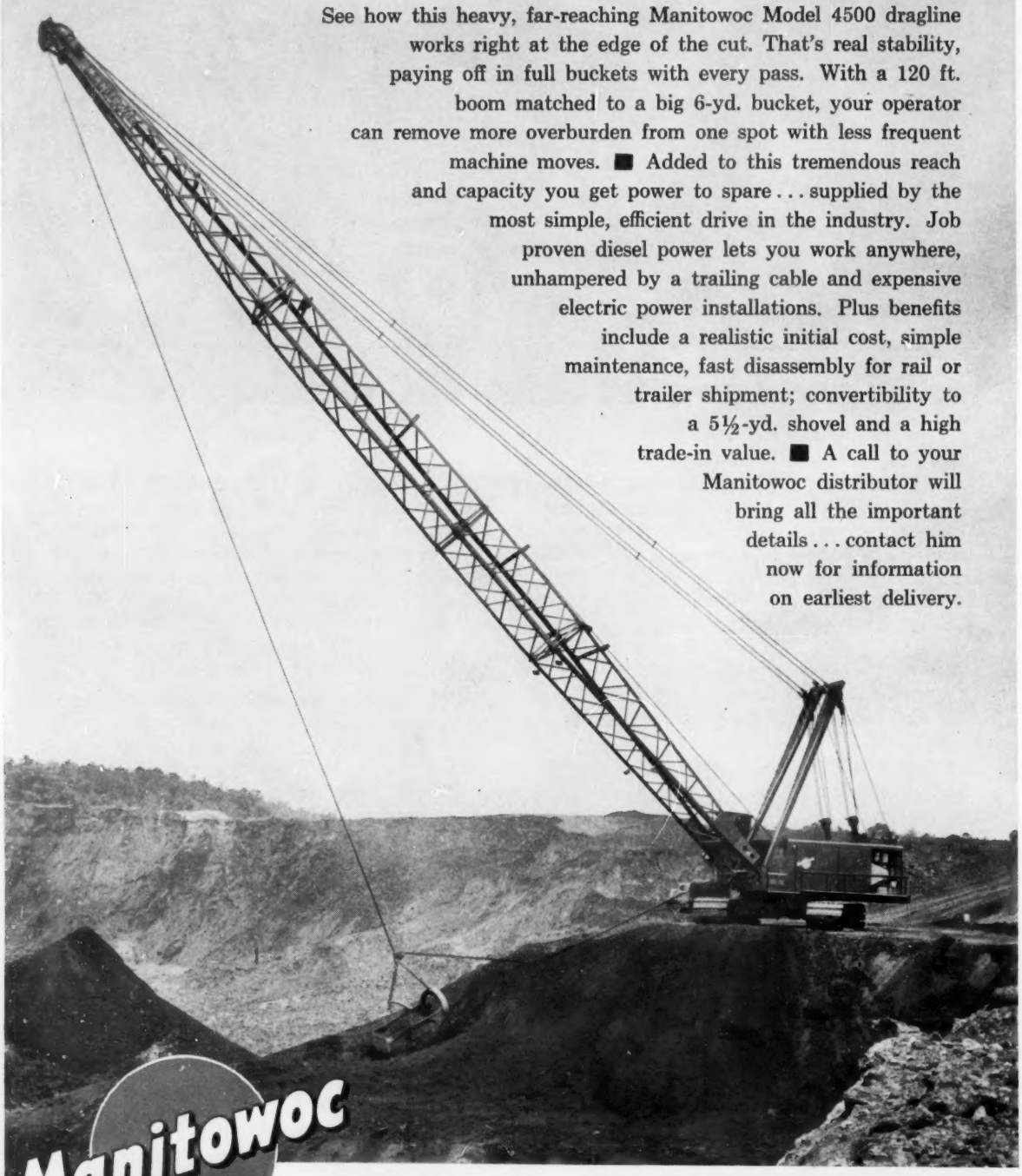
OHIO MACHINERY CO.
Cleveland, Cadiz, Youngstown, Ohio

WALKER MACHINERY CO.
Charleston, Parkersburg, W. Va.

Nothing fits **STRIP MINING**

like this fast, mobile 6-yd. *diesel-powered*

MANITOWOC!



See how this heavy, far-reaching Manitowoc Model 4500 dragline works right at the edge of the cut. That's real stability, paying off in full buckets with every pass. With a 120 ft. boom matched to a big 6-yd. bucket, your operator can remove more overburden from one spot with less frequent machine moves. ■ Added to this tremendous reach and capacity you get power to spare . . . supplied by the most simple, efficient drive in the industry. Job proven diesel power lets you work anywhere, unhampered by a trailing cable and expensive electric power installations. Plus benefits include a realistic initial cost, simple maintenance, fast disassembly for rail or trailer shipment; convertibility to a 5½-yd. shovel and a high trade-in value. ■ A call to your Manitowoc distributor will bring all the important details . . . contact him now for information on earliest delivery.

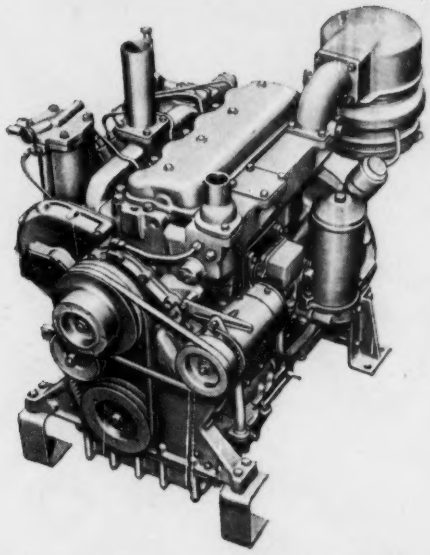
Manitowoc

MANITOWOC SALES AND SERVICE CORP.

(24 hour-a-day service)

Main Ohio Office:
4541 West 35th Street State Road Cleveland, Ohio Phone: FLorida 1-8001

Other Ohio Office:
878 East High Avenue New Philadelphia, Ohio Phones: 72107-72108



Consider Beckwith Your

POWER CENTER

for all your repowering needs

It's vital that your equipment is kept producing every minute it's on the job . . . all season. Let us put new punch into tired machines with Caterpillar Engine Power . . . power that won't get sensitive when the work gets rough.

Our power specialists can repower with a rugged Cat Engine package to fit your exacting requirements . . . economically too. Available in ranges of up to 730 HP, they run economically to give you top job efficiency and lowest final cost.

May we discuss the advantages of putting your repowering job in our hands. Call us soon . . . we'll give you full details on the versatile line of Caterpillar Diesel Engines.

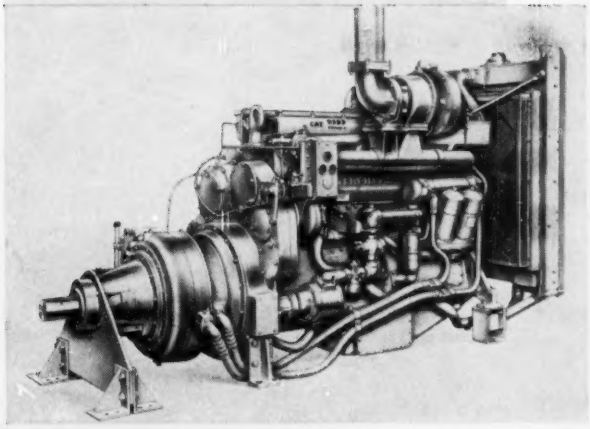
THERE'S A CATERPILLAR ENGINE PACKAGE TO FIT **EVERY** NEED

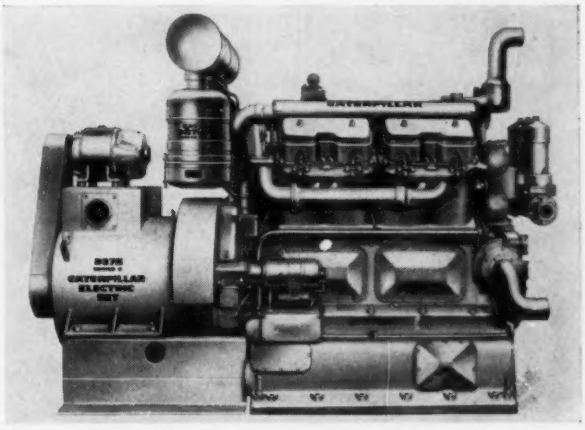
NEW, COMPACT D320, 120 HP — typical of the new, smaller Cat four-cycle Engines. Turbocharged and aftercooled to efficiently pack maximum power into minimum space. Power-to-weight ratio compares favorably with gasoline and automotive diesel engines.

CAT D353 DIESEL ENGINE — The tractor configuration of this engine powers the rugged Cat D9 Tractor. Designed to deliver peak torque under varying conditions. Available with matched clutch, torque converter or as 200 KW Electric Set.

CAT D375 ELECTRIC SET, 250 KW — Power-matched engine and generator built by Cat. Self-regulating generator produces power for less than the majority of commercial electric costs.

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.





engine power
BY CATERPILLAR

YOUR CATERPILLAR POWER CENTER

Beckwith
MACHINERY COMPANY

6500 HAMILTON AVENUE, PITTSBURGH 6, PENNSYLVANIA
201-369 CONGRESS STREET, BRADFORD, PENNSYLVANIA
OLD TOWN ROAD, CLEARFIELD, PENNSYLVANIA
1356 EAST 12TH STREET, ERIE, PENNSYLVANIA
ROUTE 219 NORTH, SOMERSET, PENNSYLVANIA
BUCKHANNON PIKE, CLARKSBURG, WEST VIRGINIA

Lima 1250 . . . Samm Coal Company, Hawthorne.

Lima 44 . . . Shawville Coal Company, Inc., Shawville.

Top production at lowest cost... Lima Shovels, Draglines from *Highway*

Lima 1250 River Hill Coal Co. Kylertown.

Lima 2400 . . . Zacherl Coal Company, Inc., Lucinda.

Highway

HIGHWAY EQUIPMENT COMPANY

6465 Hamilton Ave. • Pittsburgh 6, Pa.
40 Hoover Ave. • Du Bois, Pa.
5245 Peach St. • Erie, Pa.

Allis-Chalmers • Master • Lima • Thor • Heltzel • Gar Wood
Jaeger • Buffalo-Springfield • Lippmann Crushers
Rogers Trailers

Lima 2400 . . . Shawville Coal Company, Inc., Shawville.

Lima 2400 . . . Harold A. Siegel Coal Co., Fryburg.

Lima 1250 . . . P & N Coal Co., Punxsutawney